Transportation Concept Report

Office of System Planning • District 6 • July 2005

Caltrans

Caltrans District 6
Office of System Planning

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Photos on the front cover were taken along various segments of Interstate 5 in Caltrans District 6

Transportation Concept Report

Office of System Planning **July 2005**

INTERSTATE CALIFORNIA 5

District 6

Approval Recommended:

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Deputy District Director
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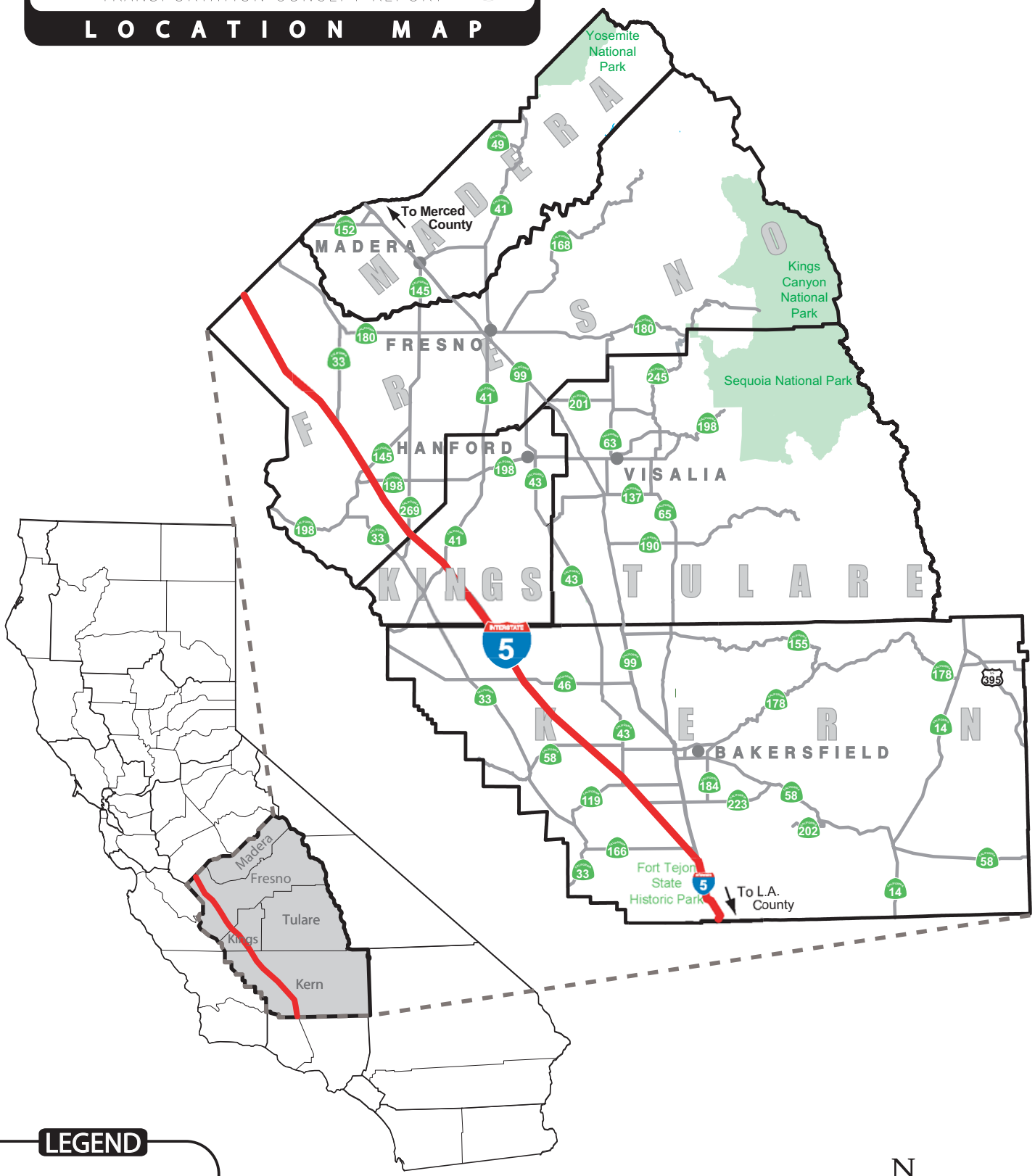
J. Mike Leonardo 8/3/05

J. Mike Leonardo **Date**
District Director

INTERSTATE ROUTE 5

TRANSPORTATION CONCEPT REPORT

LOCATION MAP



LEGEND

Counties within District 6 which I-5 traverses

Caltrans District 6 Boundary

Caltrans

N

Not To Scale

Table of Contents

Transportation Concept Report
Interstate 5
July 2005

I. INTRODUCTION

The Transportation Concept Report (TCR) is a long-range system planning document that establishes a planning concept for the corridor through the year 2030. TCRs provides route data and information, as well as current and projected (2005, 2015, and 2030) operating characteristics.

Considering reasonable financial and physical constraints, the TCR defines the appropriate Concept Level of Service (Concept LOS) and facility types for each route.

It also broadly identifies the nature and extent of improvements needed to attain the Concept LOS. Capacity-enhancing improvements, such as lane additions, are the primary focus for LOS attainment.

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highways/interstate facilities, or whichever LOS is feasible to attain.

For the purpose of this document, however, the Concept LOS is a “target” LOS determined by the importance of the route and environmental factors. A deficiency (a need for improvement) is triggered when the actual LOS falls below the Concept LOS.

The TCR also identifies transit, bicycle travel, and the implementation of Intelligent Transportation Systems (ITS) as integral to route corridor development.

The Ultimate Transportation Corridor (UTC) ensures that adequate right-of-way (ROW) is preserved for ultimate facility projects beyond 2030. However, the determination of the UTC does not consider funding as a constraint. Caltrans District 6 System Planning staff should be consulted for the interim ROW (prior to ultimate construction) for a specific location along the corridor.

This document identifies the initial and conceptual planning phase that leads to subsequent programming and the project development process.

Consequently, the specific nature of proposed improvements such as roadway width, number of lanes, and access control might change in later project development stages. Final determinations are normally made during later project report and design phases.

Therefore, the TCR is a “living document,” subject to amendments as conditions change and projects are completed. System Planning staff will update the TCR on a three-to-five year cycle or as needed.

This TCR for Interstate 5 was prepared and completed by the District 6 Office of System Planning staff in cooperation with local and regional agencies and other Caltrans functional units. As such, it will serve as a guide in cooperative planning and implementation of transportation and land use decisions.

II. ROUTE DESCRIPTION AND PURPOSE

Begins: At the USA/Mexico International Boundary (California/Baja California)

Ends: At USA/Canada International Boundary (Washington/British Columbia)

Length: A 796 mile freeway running the entire length of California; 308 miles through Oregon, and 277 miles through Washington, for a total of 1,381 miles.

This TCR covers the 180 miles of I-5 within Caltrans District 6, from the Los Angeles County Line south of Lebec to the Merced County Line in northwest Fresno County. Route 5 is one of two major north-south routes linking the Central Valley with Northern and Southern California. Within Caltrans District 6, the Interstate is entirely a multi-lane freeway, traversing Kern, Kings, and Fresno Counties.

Interstate highways are considered the backbone of the State of California's transportation system. Route 5 is a vital gateway into the Central Valley for goods movement and for the interstate and international transport for North American trade. It is also a High Emphasis Focus Route, providing connectivity with the Gateway/Focus routes SR 99 and 58, which in turn provide access to the Central Valley and destinations beyond.

Twelve State Highways intersect the route through District 6. From south to north, the highways are Routes 99, 166, 223, 119, 43, 58, 46, 41, 269, 198, 145, and 33.

Land Use: Route 5 lies in the western San Joaquin Valley, dividing the Coastal Range foothills from the agricultural lands to the east. In District 6, agricultural land use dominates the corridor and the route is classified as rural; there are no major residential, commercial, or industrial uses.

Geared primarily to travelers, there are limited commercial developments situated at various interchanges along I-5.

However, there are limited commercial developments situated at various interchanges along the route. Geared primarily to travelers, most of these businesses consist of fast food restaurants, gas stations, and motels.

Terrain: The southern portion of Kern County is mountainous from the Los Angeles County line northerly to just before the Grapevine commercial area, post mile (PM) 0.0 to PM 10.4. The balance of the route through Kern, Kings, and Fresno counties consists of flat terrain.

A. Modal Alternatives

Transit Services: Both fixed-route and dial-a-ride buses serve the local traveler as summarized below. For an overview, see the Transit Services chart in the Appendix. For specific trip information, contact the transit provider.

Kern County: Transit carriers include Kern Regional Transit (KRT), Golden Empire Transit (GET), Greyhound Bus Lines, Orange Belt Stages, Amtrak (north from Bakersfield) and Amtrak Connection (Amtrak's continuing bus service to locations in Southern California).

Kings County: Transit carriers in the I-5 corridor include Kings Area Rural Transit (KART), Orange Belt Stages, Greyhound Bus Lines, and Amtrak.

Fresno County: Transit carriers include the Fresno County Regional Transit Agency (FCRTA), Orange Belt Stages, and Greyhound Bus Lines, and Amtrak.

Amtrak Rail: There are currently six Amtrak passenger rail trains that traverse District 6 on a daily basis on the San Joaquin Route, with connections in Bakersfield, Wasco, Corcoran, Hanford, Fresno, and Madera.

High Speed Rail: The California High Speed Rail Authority (CHSRA) has developed a plan to build a high-speed rail line from San Diego to San Francisco. Electric-powered, high-speed trains could be operated at speeds up to 200 mph, allowing for travel from downtown San Francisco to Los Angeles in approximately 2 1/2 hours. The proposed 700-mile-long system would stretch from San Francisco, Oakland, and Sacramento in the north, through the Central Valley, to Los Angeles and San Diego in the south.

Should the CHSRA choose the Grapevine route alignment (over the Palmdale/Lancaster/Tehachapi route), it may parallel I-5 and SR 99. The high-speed rail line would connect to the State's existing transportation network with station links to airports, intercity rail and bus lines, commuter rail, and urban rail transit lines. This will directly benefit all motorists with traffic reductions and will help improve travel times.

Bicycle routes/pedestrian access: As with most freeways, the route's controlled access ROW prohibits pedestrians. Within District 6, all of I-5 is open to bicycle travel. The terrain ranges from level to rolling, with the exception of the Grapevine segment (from PM 5.02 to PM 10.3) which has a 5-6 percent grade.

Shoulders on the entire length are 10 feet wide and well maintained. Traveler facilities and amenities, such as food, water, lodging, etc., occur sparsely so bicyclists should plan ahead for their trip. For a more detailed description of the bike facilities along this route, please see the Appendix.

B. Intelligent Transportation Systems

Numerous applications of ITS exist on I-5 and new measures are proposed throughout Interstate 5. Examples of existing ITS applications along the route are: closed circuit television, changeable message signs, highway advisory radio, traffic monitoring stations, and weather stations. In addition, the Kern Council of Governments, through the creation of the Kern Motorist Aid Authority, operates and maintains a motorist aid call box system along I-5 in Kern County.

The Transportation Management Center, located at the District Office in Fresno, dispatches Caltrans vehicles with portable changeable message signs to improve safety and traffic flow.

A new aid to travelers, the 511 travel information phone number system, is being implemented throughout various areas of the country and in the State. The new 511 call system is a three-digit phone number with access to travel information. Not yet available in District 6, the 511 number would be an easy to remember telephone number that can be accessed by travelers before and during their trip to obtain information about State highways, local roads, local transit, and State and local trains.

The Caltrans Central Valley Transportation Management Center (TMC) monitors specific traffic locations from its headquarters at the District Office in Fresno using ITS measures such as closed circuit television and changeable message signs.

Implementation of various ITS technology will help enhance traveler information service and operational and safety efficiency of the route by informing motorists of traffic congestion and inclement weather such as fog, dust, wind, highway construction and/or closings. A chart in the Appendix lists existing and proposed ITS measures along I-5.

C. Interstate 5 Highway Facts

* Interstate 5 route approved in 1947 via SR 99; relocated to the current location as the West Side Freeway in 1957.

* Formerly known as Routes 4 and 238, which were added to the State Highway System in 1909 and 1957, respectively.

* Became part of the California Freeway and Expressway System in 1959.

* A major route in the most productive agricultural region in the world, I-5 is critical to the economic vitality of the State for goods movement and interregional travelers.

* Used for goods movement and by interregional travelers, the Annual Average Daily Traffic (AADT) ranges from 28,000 to 61,000, with trucks constituting up to 31 percent of the AADT.

* Designated as a Lifeline Route (Earthquake Emergency Response).

* Designated as a High Emphasis, Focus, and Gateway route on the Interregional Road System (IRRS).

* Recognized as a Transportation Gateway of Major Statewide Significance.

* Identified as a "Priority Global Gateway" for goods movement in the Caltrans Global Gateways Development Program (January 2002).

* Under the Federal-aid Surface Transportation Program, part of the National Highway System as a Strategic Highway Corridor Route (STRAHNET).

* On the National Network for STAA trucks.

* Functionally classified as a Principal Arterial.

* Identified as an Intermodal Corridor of Economic Significance (ICES).

* Designated as a Blue Star Memorial Highway in dedication to the United States armed forces.

* The mountainous area is known as the Grapevine.

D. General Environmental Considerations

Sensitive biological species along the I-5 corridor include various flora and fauna. The flora include the Kern mallow, San Joaquin woolly threads, California jewel-flower, and wetlands area flora.

The fauna include the burrowing owl, migratory birds, fairy shrimp, vernal pool tadpole shrimp, giant kangaroo rat, San Joaquin antelope squirrel, San Joaquin kit fox, Tipton kangaroo rats, the California and Yuma myotis bats, the big brown and Mexican free tail bats, Swainson's hawk and blunt-nosed leopard lizards.

Sensitive biological species along the I-5 corridor include Swainson's Hawk.

Cultural and archaeological sites are located along the corridor in unspecified areas. These sites are monitored by Caltrans staff archaeologists and Native American consultants, and are protected by State law.

III. Segment Map

Attached on the following pages is an 11x17" foldout TCR Segment Map for Route 5. This map shows the 16 segments of I-5 in Kern, Kings, and Fresno Counties.

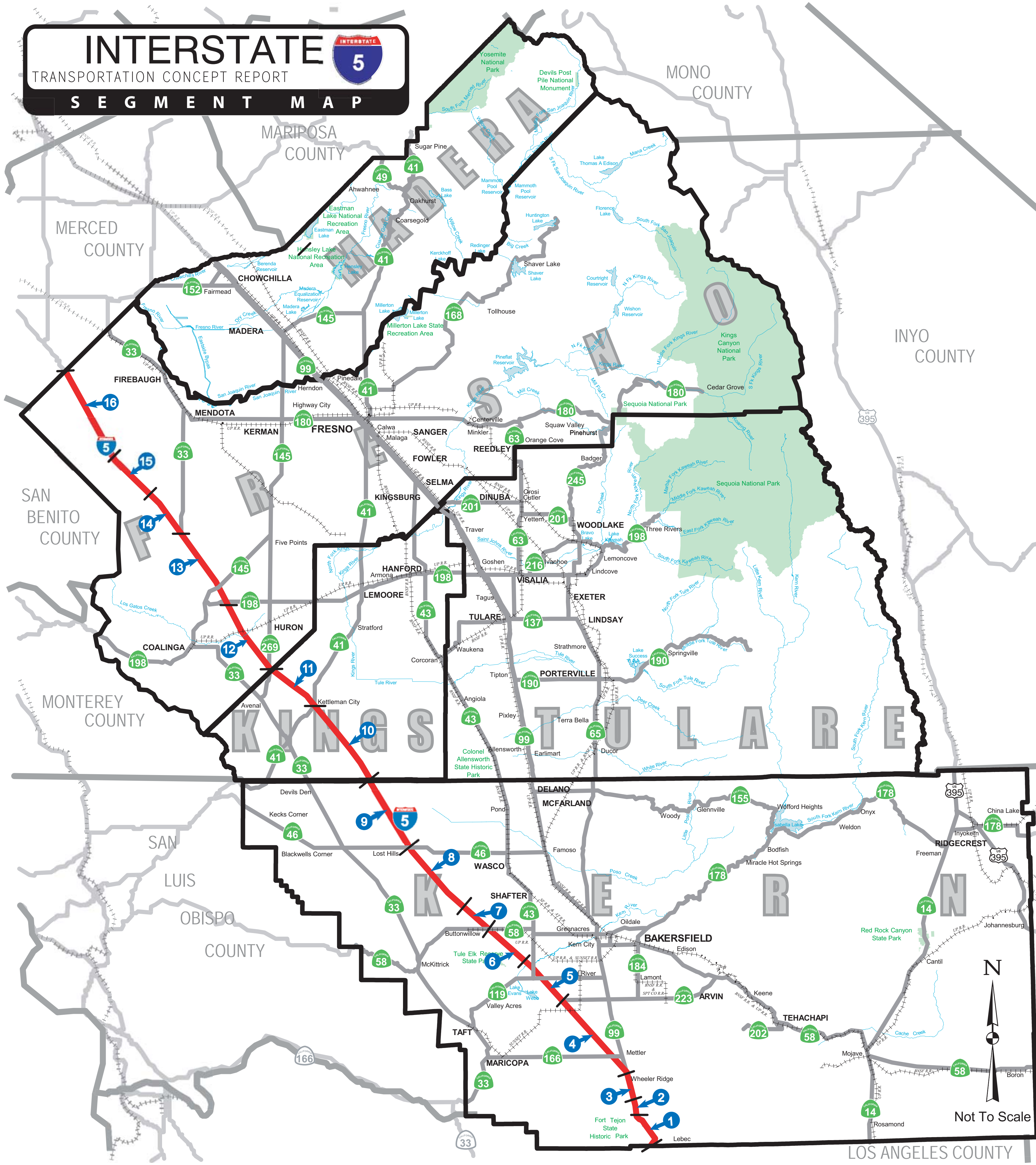
In Section IV is an overview of Interstate 5 geometrics, land use, and general environmental considerations. The overview is split into several segment groups. See the attached four page Summary Chart in Section VI for additional information in table form.

See the following page for the I-5 Segment Map.

INTERSTATE 5

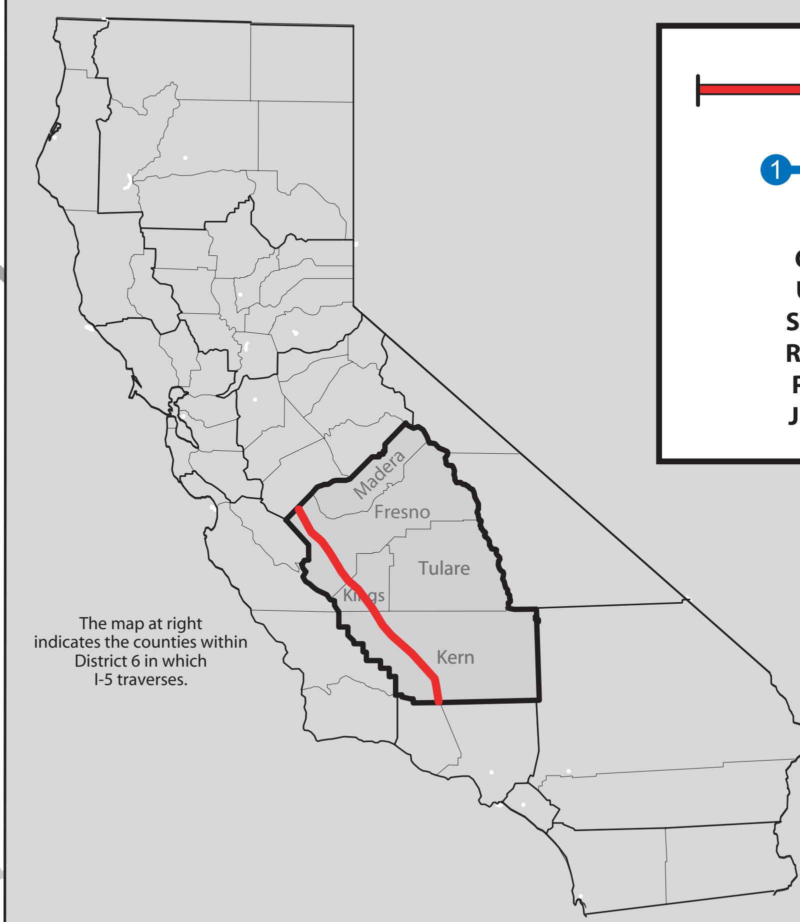
TRANSPORTATION CONCEPT REPORT

SEGMENT MAP



LEGEND

(red line)	Indicates segments of Interstate 5.
(1 →)	Corresponds with the symbols below to provide segment information.
OC	Overcrossing
UC	Undercrossing
SEP	Separation
RTE	State Route
PM	Post Mile
JCT	Junction



The map at right indicates the counties within District 6 in which I-5 traverses.

KERN COUNTY

1. **Segment 1:** I-5 PM R0.9 / 4.4
Los Angeles Co Line / Ft Tejon OC
2. **Segment 2:** I-5 PM 4.4 / 10.2
Ft Tejon OC / Grapevine UC
3. **Segment 3:** I-5 PM 10.2 / 15.5
Grapevine UC / I-5 / RTE 99 SEP
4. **Segment 4:** I-5 PM R15.5 / 33.5
I-5 / RTE 99 SEP / RTE 223 / 5 SEP
5. **Segment 5:** I-5 PM 33.5 / 47.5
RTE 223 / I-5 SEP / Stockdale Rd OC
6. **Segment 6:** I-5 PM 47.5 / 52.1
Stockdale Rd OC / I-5 / RTE 58 SEP
7. **Segment 7:** I-5 PM 52.1 / 56.6
I-5 / RTE 58 SEP / 7th Standard Rd
8. **Segment 8:** I-5 PM 56.6 / R73.0
7th Standard Rd / RTE 46 / I-5 SEP
9. **Segment 9:** I-5 PM R73.0 / R87.0
RTE 46 / I-5 SEP / Kern / Kings Co Line

Kings COUNTY

10. **Segment 10:** I-5 PM R0.0 / 16.6
Kern/Kings Co Line / I-5 / RTE 41 SEP
11. **Segment 11:** I-5 PM 16.6 / 26.7
I-5 / RTE 41 SEP / Kings / Fresno Co Line

Fresno COUNTY

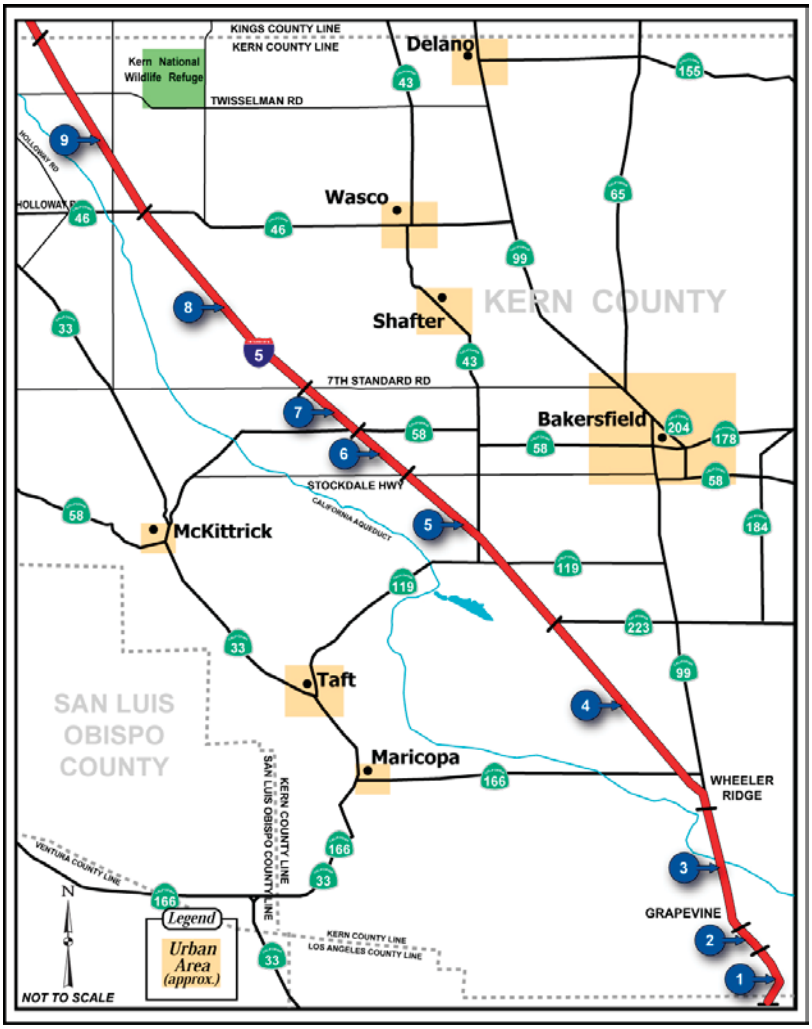
12. **Segment 12:** I-5 PM 0.0 / 14.9
Kings / Fresno Co line / RTE 198 / I-5 SEP
13. **Segment 13:** I-5 PM 14.9 / 30.9
RTE 198 / I-5 SEP / N JCT RTE 33 / I-5 SEP
14. **Segment 14:** I-5 PM 30.9 / 45.8
N JCT RTE 33 / I-5 SEP / Manning Ave OC
15. **Segment 15:** I-5 PM 45.8 / 52.7
Manning Ave OC / Russell Ave OC
16. **Segment 16:** I-5 PM 52.7 / 66.2
Russell Ave OC / Merced Co Line

IV. Geometrics, Land Use, and Environmental Considerations

Segments 1-9: Kern County: Los Angeles County Line to Kings County Line

Begins: At Los Angeles County Line, south of Gorman
Ends: 14 miles north of State Route 46, at the Kings County Line

Land Use: Interstate 5 is the main route between northern California, the great Central Valley, and Southern California. The highway descends from mountainous terrain through Grapevine Canyon, and passes historic Fort Tejon and the communities of Lebec, Grapevine, Wheeler Ridge, and Mettler. Near the community of Wheeler Ridge is the Tejon Industrial Complex, which is planned for 20 million square feet on 1,450 acres, and currently includes the over 1.7 million square foot IKEA warehouse. Amenities include the nearby Petro Travel Plaza and the TravelCenters of America facility.



The Bakersfield area is the sole major population center in the corridor. The land use is primarily agricultural and range land. Freeway commercial and residential uses are sparse, with the exception of a developed commercial area at the I-5/SR 58 interchange that serves the area residents and traveling public.

Facility: From the Los Angeles County line to the I-5/SR 99 Separation, the route consists of an 8-lane freeway facility. From that point through the balance of Kern County (and throughout Kings and Fresno Counties), the remainder of the route is a 4-lane freeway.
Interchanges with I-5 in this segment are with Routes 99, 166, 223, 119, 43, 58, and 46.

For the interstate traveler, there are two Safety Roadside Rest Areas (SRRAs) in Kern County. The Tejon Pass SRRA is located near Lebec. The Buttonwillow SRRA is located 2 miles north of the SR 58 interchange. The Safety Roadside Rest Area System Master Plan proposes a new South Dome rest area tentatively 35 miles north of the existing Buttonwillow SRRA.

Commonly known as the Grapevine, this northbound descent into the Central Valley involves steep grades.

Commonly known as the Grapevine, this northbound descent into the Central Valley involves steep grades from PM 0.0 near the summit to approximately PM 10.4 at the valley floor. On this descent there is a 6 percent grade for five miles, from approximately PM 4.8 to PM 9.8.

A dedicated truck lane (35-mile per hour speed limit) is available on the northbound descent to the valley floor which helps improve the traffic flow, as is a dedicated truck lane uphill in the southbound direction.

There are also two northbound truck escape ramps available for runaway trucks; one off the right shoulder at PM 8.2, the second in the median area at PM 8.6. The steep descent ends on the valley floor, near the commercial area of Grapevine.

Environmental/Historical Resources: With any future construction, environmental concerns in this 8-lane (8F) freeway from the Los Angeles County line to the I-5/SR 99 Separation would be related to the mountainous terrain, which would propose the greatest constraint to improvements of the Interstate.

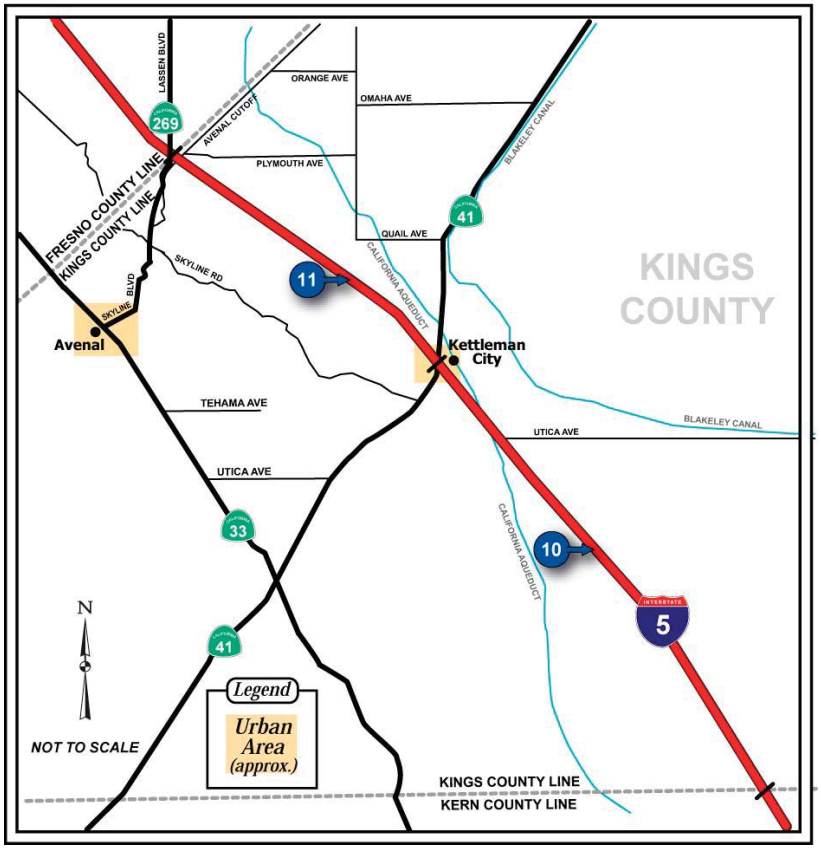
Other constraints include the presence of numerous utilities (such as crude oil pipelines and fiber optic cables), Grapevine Creek, Fort Tejon State Park and other historic properties, archaeology, endangered species, aesthetic concerns, the California Aqueduct, the two runaway truck escape ramps, and an occasionally split alignment along the route.

From the I-5/SR 99 Separation to the Kings County line, the route is a 4-lane freeway (4F), crossing the Kern River and several canals. In addition to these water crossing constraints, there are also historical issues. The median in this area appears to be wide enough to accommodate two additional lanes in each direction. Endangered species may forage or live within the river and canals and ROW, posing further potential environmental constraints. Construction of additional lanes could reduce the ability for wildlife to move across the freeway.

See the next page for infomation regarding Segments 10-11 and 12-16.

Segments 10-11: Kings County: Kern County Line to Fresno County Line

Begins: At the Kern County Line
Ends: At the junction of State Route 269/Fresno County Line



Land Use: Segments 10-11 consist of a 4-lane freeway traversing agricultural lands and the California Aqueduct. At the I-5/SR 41 Separation is Kettleman City, which offers motels, restaurants, convenience stores, and more.

Facility: The route is a 4-lane freeway throughout these segments. Interchanges with I-5 in this segment are with Routes 41 and 269.

Environmental/Historical Resources: Environmental issues include potential constraints from the California Aqueduct and several arroyos and creeks which cross the route. Endangered species may forage or live within the ROW. Construction of additional lanes could reduce the ability for wildlife to move across the freeway.

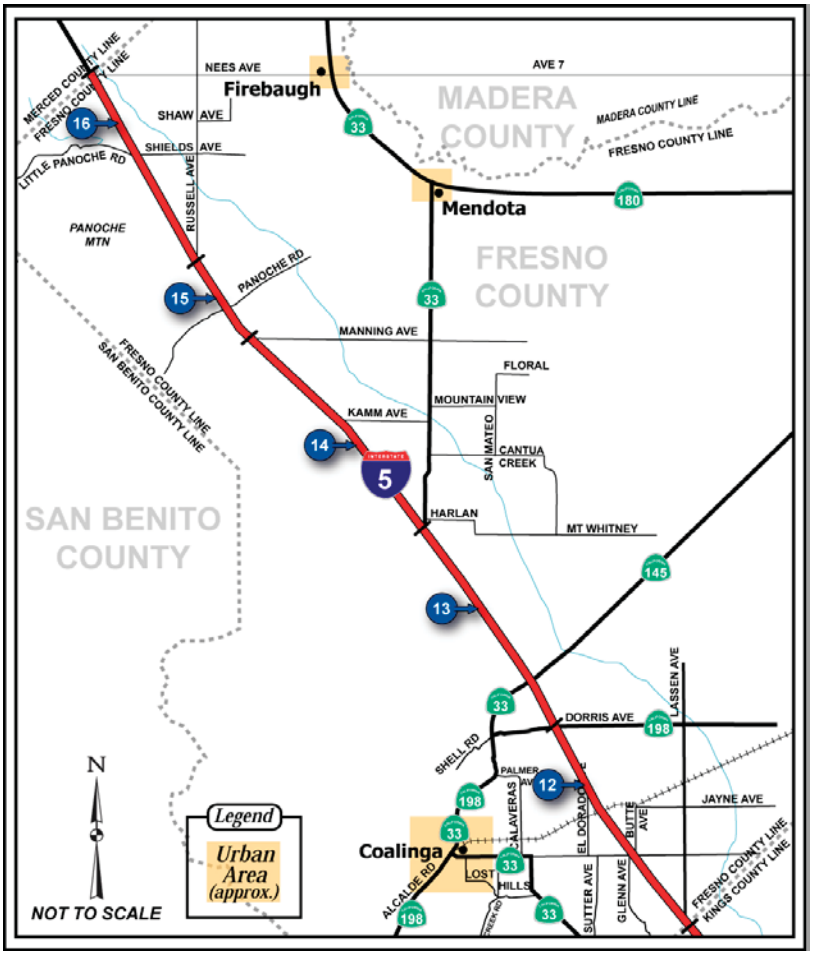
Segments 12-16: Fresno County: Kings County Line to Madera County Line

Begins: At the Kings County Line/State Route 269
Ends: At the Merced County Line, 0.4 miles north of the Nees Avenue Overcrossing

Land Use: Segments 12-16 consist of agricultural and range lands. For the traveler there is the Three Rocks roadside rest area at SR 33, the Harris Ranch commercial area southeast of I-5 and SR 198, and amenities at Panoche Road and Nees Avenue.

Facility: The route is a 4-lane freeway throughout these segments. Interchanges with I-5 in this segment are with Routes 269, 198, 145, and 33. For the traveler the Coalinga-Avenal SRRA is located 1.2 miles north of Lassen Avenue. The Safety Roadside Rest Area System Master Plan proposes the Three Rocks rest area, tentatively to be located 35 miles to the north of the existing Buttonwillow SRRA, near SR 33.

A Route Adoption Study that would explore the feasibility of connecting SR 180 to I-5 beginning at SR 33 in Fresno County has been proposed and funds have been allocated.



V. Concept Rationale

Route Concept LOS: Since I-5 is classified as entirely rural and because of the regional and statewide importance of this corridor for goods movement and interregional travel, LOS C has been assigned as the Route Concept.

Environmental/Historical Resources: Environmental issues for these final segments in District 6 include concerns with crossing the existing arroyos and creeks. Endangered species may forage or live within the ROW, posing potential constraints. Construction of additional lanes could reduce the ability for wildlife to move across the freeway.

Originally I-5 was designed for non-holiday traffic. Therefore, the traffic volume data used in projecting future volumes and for calculating levels of service in this TCR was compiled using non-holiday, weekend counts.

Concept Facility: The Concept Facility (corridor considered viable within 25 years) is as follows:

* Segment 1: add two lanes, from 8F to a 10-lane freeway (10F).
* Segment 2: add auxiliary lanes, from 6F+2AUX (truck lanes) to 8F+4AUX (truck lanes).
* Segment 3: add two lanes, from 8F to 10F.
* Segments 4-16: add two lanes, from 4F to 6F.

VI. Interstate 5 Transportation Concept Report Summary Chart

The following four page Summary Chart depicts the 16 distinct segments and provides descriptive and technical information, both current and forecast, for the Interstate. The Chart also has a linear geographic diagram that illustrates the major State and local highway facilities, along with key natural features, City/County boundaries, and current highway geometrics. A “Chart Explanation” bar defines what is shown on the Chart. The Summary Chart also delineates the functional classification, various highway designations, and general plan information.

See the following pages for the remainder of the TCR and the four page Summary Chart.

LEGEND

Existing Lanes

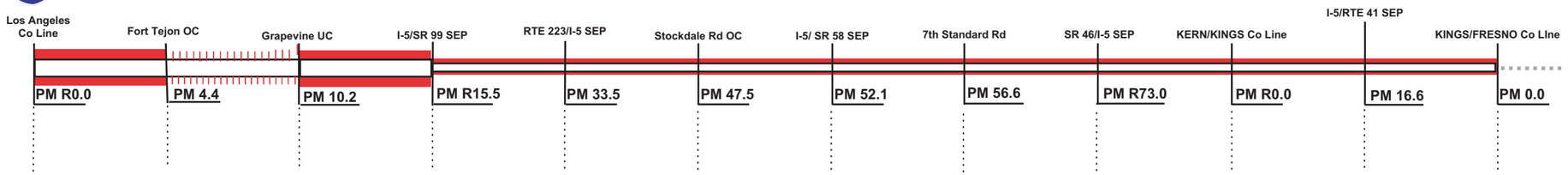
Planned or Programmed by 2030

Add Through Lanes

Add Auxiliary Lanes

* Length of Segments Not to Scale

Number of Lanes: 4, 6, 8, 10



Segment: Is self-explanatory except for several data sets:

Rural/Urban: Indicates whether the segment is in a rural area or city limits.

Terrain: Shows the general highway grade: minimal grade = level; moderate grade = rolling; and severe grade = mountainous.

ROW: Portrays Right-of-Way (ROW) and geometric data in feet and meters.

Shoulder Range: Is a range of treated surface (8' standard), both inside and outside shoulders.

Ultimate (UTC): Is the typical ROW needed for the ultimate facility, i.e., 8 lane freeway (8F) 218' is the standard typical UTC ROW - will be updated upon corridor plan lining by specific sections of highway.

Facility: Shows the Existing Facility, the desired facility type (2030 Concept) by 2030-RTPA's and Caltrans, and the Ultimate Facility to preserve ROW and plan line beyond 2030. It also shows whether a passing lane exists. 2C(I) indicates that the highway has been improved in select locations with operational or safety improvements. Examples are: passing lanes, channelization and traffic signals.

LOS: The current (2005) LOS (level of service), along with the expected calculated LOS in 2015 and 2030. The 2030 Concept is the target LOS desired, i.e., LOS C, for attainment by 2030 Caltrans.

Deficiency: Occurs when the target LOS is degraded, i.e., LOS D worse than LOS C, with the year of occurrence shown. It also shows whether a capacity improving project is in the STIP, and what the LOS would be with the 2030 Concept improvement.

Directional Split: Denotes the split in peak hour traffic flow on a directional basis (NB/SB or WB/EB) either in the morning (AM) or evening (PM).

AADT: signifies Annual Average Daily Traffic.

Peak Hour: indicates a representation of the maximum hour of traffic flow during the day.

% Trucks: shows the percent of trucks for AADT and Peak Hour.

*Concept Facility meets Concept LOS.

** Deficient-Concept Facility does not meet Concept LOS .

+The ultimate ROW is generally the same as the existing ROW.

++ (AUX) Auxiliary lanes are truck climbing lanes.

^ 99P Median is variable width - greater than 100' - split alignment.

SEGMENT	1	2	3	4	5	6	7	8	9	10	11
County / Route	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KINGS / 5	KINGS / 5
Description Begin	LA CO LINE	FT TEJON OC	GRAPEVINE UC	RTE 99/I-5 SEPARATION	RTE 223/I-5 SEPARATION	STOCKDALE RD OC	RTE 58/I-5 SEPARATION	7 TH STANDARD RD	RTE 46/I-5 SEPARATION	KERN/KINGS CO LINE	RTE 41/I-5 SEPARATION
Description End	FT TEJON OC	GRAPEVINE UC	RTE 99/I-5 SEPARATION	RTE 223/I-5 SEPARATION	STOCKDALE RD OC	RTE 58/I-5 SEPARATION	7 TH STANDARD RD	RTE 46/I-5 SEPARATION	KERN/KINGS CO LINE	RTE 41/I-5 SEPARATION	KINGS/FRESNO CO LINE
Postmile Limits Begin/End	R 0.0 / 4.4	4.4 / 10.2	10.2 / R 15.5	R 15.5 / 33.5	33.5 / 47.5	47.5 / 52.1	52.1 / 56.6	56.6 / R 73.0	R 73.0 / R 87.0	R 0.0 / 16.6	16.6 / 26.7
Length (MI)	4.4 MI	5.8 MI	5.3 MI	18.0 MI	14.0 MI	4.6 MI	4.5 MI	16.4 MI	14.0 MI	16.6 MI	10.1 MI
Rural or Urban	RURAL	RURAL	RURAL	RURAL	RURAL	RURAL	RURAL	RURAL	RURAL	RURAL	RURAL
Terrain	MOUNTAINOUS	MOUNTAINOUS	FLAT	FLAT	FLAT	FLAT	FLAT	FLAT	FLAT	FLAT	FLAT
ROW: Range Existing (FT)	214.0 / 340.0 FT	218.0 / 400.0 FT	208.0 / 230.0 FT	208.0 / 208.0 FT	208.0 / 230.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 240.0 FT
Median Range (FT)	36.0 / 46.0 FT	46.0 / 99P^ FT	36.0 / 99P^ FT	84.0 / 99P^ FT	79.0 / 84.0 FT	79.0 / 84.0 FT	74.0 / 84.0 FT	79.0 / 84.0 FT	84.0 / 84.0 FT	84.0 / 84.0 FT	74.0 / 84.0 FT
Shoulder Range (FT)	8.0 / 10.0 FT	8.0 / 10.0 FT	8.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT
Lane Width (FT)	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT
Ultimate ROW (FT)	+ FT	+ FT	+ FT	+ FT	+ FT	+ FT	+ FT	+ FT	+ FT	+ FT	+ FT
Facility: Existing	8F	6F+ 2AUX++	8F	4F	4F	4F	4F	4F	4F	4F	4F
2030 Concept	10F	6F+ 4AUX++	10F	6F	6F	6F	6F	6F	6F	6F	6F
UTC	10F	6F+ 4AUX++	10F	8F	8F	8F	8F	8F	8F	8F	8F
LOS: 2005	C	C	B	B	B	B	B	B	B	B	B
LOS: 2015	F	F	D	C	C	C	C	C	C	C	C
LOS: 2030	F	F	F	E	E	E	D	D	D	C	C
LOS: 2030 Concept	C	C	C	C	C	C	C	C	C	C	C
Deficiency/Year Deficient	2015	2015	2015	2030	2030	2030	2030	2030	2030	N/A	N/A
Project in STIP/RTP (Y/N)	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
LOS W/ Concept Improvement	F**	F**	E**	C*	C*	C*	C*	C*	C*	B*	B*
Directional Split (Peak Hour)	57/43	57/43	57/43	52/48	52/48	52/48	52/48	52/48	52/48	52/48	52/48
AADT: 2005	105,300	105,300	105,300	47,600	51,100	51,100	51,100	50,100	50,100	52,300	52,300
AADT: 2015	154,800	155,800	159,000	70,000	74,100	72,600	70,000	68,600	69 ,100	66,400	65,900
AADT: 2030	227,400	238,000	240,100	102,300	106,300	102,700	96,100	93,700	95,200	83,700	83,200
Peak Hour: 2005	7,370	7,370	7,370	3,330	3,580	3,580	3,580	3,500	3,500	3,660	3,660
Peak Hour: 2015	10,830	10,910	11,130	4,900	5,190	5,080	4,900	4,800	4,830	4,650	4,610
Peak Hour: 2030	15,900	16,660	16,800	7,160	7,450	7,200	6,730	6,550	6,650	5,860	5,820
% Trucks: AADT	28 %	28 %	28 %	29 %	29 %	31 %	31 %	31 %	31 %	30 %	30 %
% Trucks: Peak Hour	9 %	9 %	9 %	14 %	12 %	11 %	11 %	11 %	12 %	7 %	7 %

INTERSTATE ROUTE

LEGEND

Existing Lanes

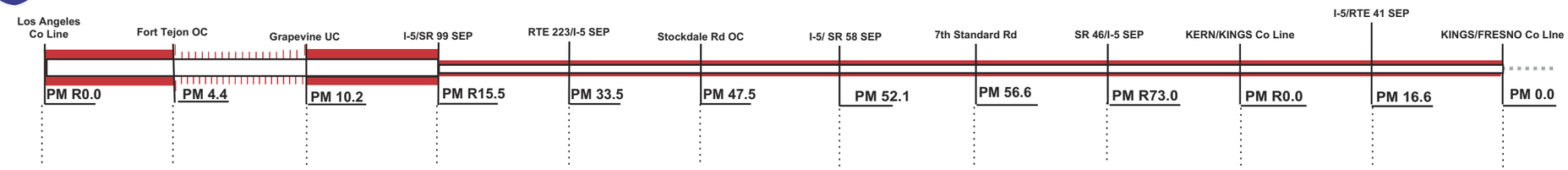
Planned or Programmed by 2030

Add Through Lanes

Add Auxiliary Lanes

Number of Lanes: 4, 6, 8, 10

* Length of Segments Not to Scale



Segment: Is self-explanatory except for several data sets:

Functional Classification: A process by which streets and highways are grouped into or classification systems.

NHS (National Highway System): Included in the NHS is all interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

Freeway/Expressway System: The Statewide system of highways declared to be essential to the future development of California.

Regionally Significant: Serves regional transportation needs including at a minimum all principal arterial highways and all fixed guideway transit facilities.

STRAHNET: A highway that provides defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war.

Lifeline: A route on the State highway system that is deemed so critical to emergency response/life-saving activities of a region or the state that it must remain open.

IRRS (Interregional Road System): A series of State highway routes, outside the urbanized areas, that provide access to the State's economic centers, major recreational areas, and urban and rural regions.

STAA (Surface Transportation Assistance Act): This act required states to allow larger trucks on the National Network. "Terminal Access" routes are State highways that can accomodate STAA trucks. Other designations i.e., California Legal offer more limited access.

Scenic: : A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers.

ICES (Intermodal Corridor of Economic Significance): Significant National Highway System Corridors that link intermodal facilities most directly, conveniently and efficiently to intrastate, interstate, and international markets.

SEGMENT	1	2	3	4	5	6	7	8	9	10	11
County / Route	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KERN / 5	KINGS / 5	KINGS / 5
Description Begin	LA CO LINE	FT TEJON OC	GRAPEVINE UC	RTE 99/I-5 SEPARATION	RTE 223/I-5 SEPARATION	STOCKDALE RD OC	RTE 58/I-5 SEPARATION	7 TH STANDARD RD	RTE 46/I-5 SEPARATION	KERN/KINGS CO LINE	RTE 41/I-5 SEPARATION
Description End	FT TEJON OC	GRAPEVINE UC	RTE 99/I-5 SEPARATION	RTE 223/I-5 SEPARATION	STOCKDALE RD OC	RTE 58/I-5 SEPARATION	7 TH STANDARD RD	RTE 46/I-5 SEPARATION	KERN/KINGS CO LINE	RTE 41/I-5 SEPARATION	KINGS/FRESNO CO LINE
Postmile Limits Begin/End	R0.0 / 4.4	4.4 / 10.2	10.2 / R15.5	R15.5 / 33.5	33.5 / 47.5	47.5 / 52.1	52.1 / 56.6	56.6 / R73.0	R73.0 / R87.0	R0.0 / 16.6	16.6 / 26.7
Lane Length (MI)	4.4 MI	5.8 MI	5.3 MI	18.0 MI	14.0 MI	4.6 MI	4.5 MI	16.4 MI	14.0 MI	16.6 MI	10.1 MI
Functional Classification	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial
National Highway System (NHS) (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Freeway/Expressway System (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Regionally Significant (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
STRAHNET (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Lifeline (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRRS (Yes: HE=High Emphasis, F=Focus, G=Gateway) or No	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G
TRUCK NETWORK: STAA (NN=National Network, TA=Terminal Access) or CL=California Legal, R=Special Restrictions; A=Advisory	NN	NN	NN	NN	NN	NN	NN	NN	NN	NN	NN
Scenic (Yes: OD=Officially Designated, E=Eligible) or No	No	No	No	No	No	No	No	No	No	No	No
ICES (Intermodal Corridor of Economic Significance) (Y/N)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
General Plan/RTP LOS Standard	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kern Co LOS for CMP & RTP Regionally Significant System-E	Kings County Defers to Caltrans concept LOS - C	Kings County Defers to Caltrans concept LOS - C
General Plan/RTP Standard Highway Classification	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route
Bike Use Allowed (Y/N)	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

INTERSTATE ROUTE 5

LEGEND

Existing Lanes

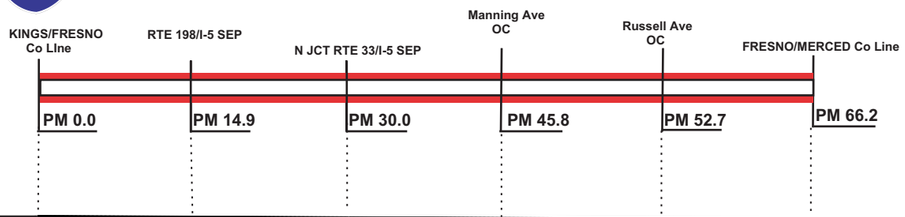
Planned or Programmed by 2030

Add Through Lanes

Add Auxiliary Lanes

* Length of Segments Not to Scale

Number of Lanes: 4, 6, 8, 10



Segment: Is self-explanatory except for several data sets:

Rural/Urban: Indicates whether the segment is in a rural area or city limits.

Terrain: Shows the general highway grade: minimal grade = level; moderate grade = rolling; and severe grade = mountainous.

ROW: Portrays Right-of-Way (ROW) and geometric data in feet and meters.

Shoulder Range: Is a range of treated surface (8' standard), both inside and outside shoulders.

Ultimate (UTC): Is the typical ROW needed for the ultimate facility, i.e., 8 lane freeway (8F) 218' is the standard typical UTC ROW - will be updated upon corridor plan lining by specific sections of highway.

Facility: Shows the Existing Facility, the desired facility type (2030 Concept) by 2030-RTPA's and Caltrans, and the Ultimate Facility to preserve ROW and plan line beyond 2030. It also shows whether a passing lane exists. 2C(I) indicates that the highway has been improved in select locations with operational or safety improvements. Examples are: passing lanes, channelization and traffic signals.

LOS: The current (2005) LOS (level of service), along with the expected calculated LOS in 2015 and 2030. The 2030 Concept is the target LOS desired, i.e., LOS C, for attainment by 2030 Caltrans.

Deficiency: Occurs when the target LOS is degraded, i.e., LOS D worse than LOS C, with the year of occurrence shown. It also shows whether a capacity improving project is in the STIP, and what the LOS would be with the 2030 Concept improvement.

Directional Split: Denotes the split in peak hour traffic flow on a directional basis (NB/SB or WB/EB) either in the morning (AM) or evening (PM).

AADT: signifies Annual Average Daily Traffic.

Peak Hour: indicates a representation of the maximum hour of traffic flow during the day.

% Trucks: shows the percent of trucks for AADT and Peak Hour.

*Concept Facility meets Concept LOS.

** Deficient-Concept Facility does not meet Concept LOS .

+The ultimate ROW is generally the same as the existing ROW.

++ (AUX) Auxiliary lanes are truck climbing lanes.

^ 99P Median is variable width - greater than 100' - split alignment.

SEGMENT	12	13	14	15	16
County / Route	FRESNO / 5	FRESNO / 5	FRESNO / 5	FRESNO / 5	FRESNO / 5
Description Begin	KINGS/FRESNO CO LINE	RTE 198/I-5 SEPARATION	N JCT RTE 33/I-5 SEPARATION	MANNING AVE OC	RUSSELL AVE OC
Description End	RTE 198/I-5 SEPARATION	N JCT RTE 33/I-5 SEPARATION	MANNING AVE OC	RUSSELL AVE OC	FRESNO/MERCED CO LINE
Postmile Limits Begin/End	0.0 / 14.9	14.9 / 30.0	30.0 / 45.8	45.8 / 52.7	52.7 / 66.2
Length (MI)	14.9 MI	15.1 MI	15.8 MI	6.9 MI	13.5 MI
Rural or Urban	RURAL	RURAL	RURAL	RURAL	RURAL
Terrain	FLAT	FLAT	FLAT	FLAT	FLAT
ROW: Range Existing (FT)	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT	208.0 / 208.0 FT
Median Range (FT)	82.0 / 84.0 FT	84.0 / 99P^ FT	84.0 / 99P^ FT	84.0 / 84.0 FT	84.0 / 84.0 FT
Shoulder Range (FT)	10.0 / 10.0 FT	2.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT	5.0 / 10.0 FT
Lane Width (FT)	12.0 FT	12.0 FT	12.0 FT	12.0 FT	12.0 FT
Ultimate ROW (FT)	+ FT	+ FT	+ FT	+ FT	+ FT
Facility: Existing	4F	4F	4F	4F	4F
2030 Concept	6F	6F	6F	6F	6F
UTC	8F	8F	8F	8F	8F
LOS: 2005	B	B	B	B	B
LOS: 2015	C	C	C	C	C
LOS: 2030	D	D	D	D	D
LOS: 2030 Concept	C	C	C	C	C
Deficiency/Year Deficient	2030	2030	2030	2030	2030
Project in STIP/RTP (Y/N)	Yes	Yes	Yes	Yes	Yes
LOS W/ Concept Improvement	C*	C*	C*	C*	B*
Directional Split (Peak Hour)	52/48	52/48	52/48	52/48	55/45
AADT: 2005	52,300	52,300	52,300	51,500	49,800
AADT: 2015	69,600	71,100	71,100	69,500	67,200
AADT: 2030	92,600	97,300	96,800	94,200	91,100
Peak Hour: 2005	3,660	3,660	3,660	3,610	3,480
Peak Hour: 2015	4,870	4,980	4,980	4,870	4,700
Peak Hour: 2030	6,480	6,810	6,770	6,610	6,370
% Trucks: AADT	30 %	30 %	30 %	30 %	30 %
% Trucks: Peak Hour	8 %	8 %	8 %	8 %	8 %

INTERSTATE ROUTE

LEGEND

Existing Lanes

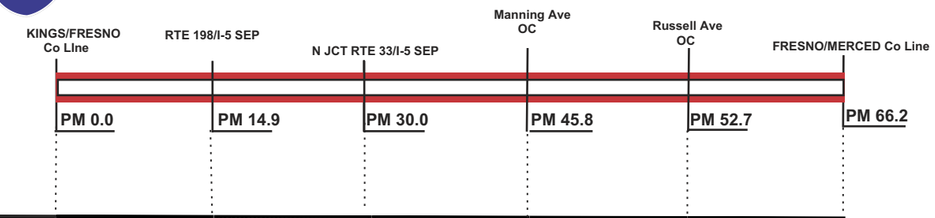
Planned or Programmed by 2030

Add Through Lanes

Add Auxiliary Lanes

Number of Lanes: 4, 6, 8, 10

* Length of Segments Not to Scale



Segment: Is self-explanatory except for several data sets:

Functional Classification: A process by which streets and highways are grouped into or classification systems.

NHS (National Highway System): Included in the NHS is all interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and strategic highway connectors.

Freeway/Expressway System: The Statewide system of highways declared to be essential to the future development of California.

Regionally Significant: Serves regional transportation needs including at a minimum all principal arterial highways and all fixed guideway transit facilities.

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STAA (Surface Transportation Assistance Act): This act required states to allow larger trucks on the National Network. "Terminal Access" routes are State highways that can accomodate STAA trucks. Other designations i.e., California Legal offer more limited access.

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ICES (Intermodal Corridor of Economic Significance): Significant National Highway System Corridors that link intermodal facilities most directly, conveniently and efficiently to intrastate, interstate, and international marke

SEGMENT	12	13	14	15	16
County / Route	FRESNO / 5	FRESNO / 5	FRESNO / 5	FRESNO / 5	FRESNO / 5
Description Begin	KINGS/FRESNO CO LINE	RTE 198/I-5 SEPARATION	N JCT RTE 33/I-5 SEPARATION	MANNING AVE OC	RUSSELL AVE OC
Description End	RTE 198/I-5 SEPARATION	N JCT RTE 33/I-5 SEPARATION	MANNING AVE OC	RUSSELL AVE OC	FRESNO/MERCED CO LINE
Postmile Limits Begin/End	0.0 / 14.9	14.9 / 30.0	30.0 / 45.8	45.8 / 52.7	52.7 / 66.2
Lane Length (MI)	14.9 MI	15.1 MI	15.8 MI	6.9 MI	13.5 MI
Functional Classification	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial
National Highway System (NHS) (Y/N)	Yes	Yes	Yes	Yes	Yes
Freeway/Expressway System (Y/N)	Yes	Yes	Yes	Yes	Yes
Regionally Significant (Y/N)	Yes	Yes	Yes	Yes	Yes
STRAHNET (Y/N)	Yes	Yes	Yes	Yes	Yes
Lifeline (Y/N)	Yes	Yes	Yes	Yes	Yes
IRRS (Yes: HE=High Emphasis, F=Focus, G=Gateway) or No	HE, F & G	HE, F & G	HE, F & G	HE, F & G	HE, F & G
TRUCK NETWORK: STAA (NN=National Network, TA=Terminal Access) or CL=California Legal, R=Special Restrictions; A=Advisory	NN	NN	NN	NN	NN
Scenic (Yes: OD=Officially Designated, E=Eligible) or No	No	No	No	No	No
ICES (Intermodal Corridor of Economic Significance) (Y/N)	Yes	Yes	Yes	Yes	Yes
General Plan/RTP LOS Standard	Fresno Co GP prefers LOS C consistent w/Caltrans concept LOS - C	Fresno Co GP prefers LOS C consistent w/Caltrans concept LOS - C	Fresno Co GP prefers LOS C consistent w/Caltrans concept LOS - C	Fresno Co GP prefers LOS C consistent w/Caltrans concept LOS - C	Fresno Co GP prefers LOS C consistent w/Caltrans concept LOS - C
General Plan/RTP Standard Highway Classification	Interstate Route	Interstate Route	Interstate Route	Interstate Route	Interstate Route
Bike Use Allowed (Y/N)	Yes	Yes	Yes	Yes	Yes

VII. A Review of Interstate 5 Performance: Current and Future

As of 2005, Interstate 5 is operating at LOS B and C throughout District 6. By 2015 and 2030, the LOS will likely deteriorate on all segments due to increased interregional and statewide travel. The route is projected to operate at LOS D, E, and F throughout District 6 by the year 2030 without improvements. However, with planned RTP and STIP capacity-increasing projects LOS improvements will be made throughout most of the route.

These projects, most of which will be an increase from 4F to 6F, will be sufficient to attain the Concept LOS of C in Segments 4-16. For Segments 1-3, the projected LOS with improvements (10F or 6F +2AUX lanes) will only be LOS E or F. Projected high truck volume in the Grapevine area necessitates adding these additional truck lanes. These improvements would help improve traffic flow and safety. Caltrans will monitor the need for capacity improvements on I-5 on a periodic basis.

Because of forecasted growth, proposals for the UTC include increasing the number of lanes from 4 to 8 lanes from the I-5/SR 99 Separation to the Fresno/Merced County line. The UTC proposes 10 lanes from the Los Angeles County line to the I-5/SR 99 Separation. For the future, there is the potential for a rail or transit corridor along I-5, in addition to the proposed High Speed Rail Corridor. It is unknown at this time what the effect High Speed Rail would have on relieving traffic congestion on Interstate 5, especially in the mountainous area.

The handling of truck traffic on Interstate 5 may be dealt with in unique ways to address the increasingly larger volumes in District 6. Caltrans District 7 in Los Angeles County is already studying alternatives for handling truck movements.

Numerous roadway improvements on I-5 have been identified through the Caltrans Intergovernmental Review (IGR) process. These identified improvements may occur as a result of local development impact on the State or Interstate highway. These have been conveyed to the local jurisdictions, including Kern, Kings, and Fresno Counties. Any projected improvements to I-5 will be funded in collaboration with the three Metropolitan Planning Organizations (MPOs) and Caltrans, as indicated in their respective Regional Transportation Plans (RTPs). The MPOs are the Kern Council of Governments, Kings County Association of Governments, and Council of Fresno County Governments.

There are also various State Highway Operations Protection Program (SHOPP) projects that focus on maintenance, safety, and operational improvements, such as median barrier construction and AC (asphaltic concrete) overlay.

In addition to these regular maintenance and periodic operations and safety improvements completed on Route 5 through SHOPP projects, Caltrans will continue to work toward ITS improvements as needed, and other strategies to more effectively provide traveler information and to improve traffic flow.

VIII. Planned and Programmed Capacity-Increasing Improvements to Interstate 5

The following table in this section shows both the planned and programmed *capacity-increasing* projects for Route 5 over the next 25 years. The table shows the segment, project, listing document, description, and projected completion date.

Note: only those segments with planned and/or programmed projects are listed.

Project scope and technical data are for general informational purposes only. If current information is needed, please verify with the Caltrans District 6 Office of Advance Planning at (559) 445-5232.

Segment PM From/To	I-5 Planned Projects	I-5 Programmed Projects
2 KERN PM 4.4-10.2 FT TEJON OC to GRAPEVINE UC	**RTP:** KER 5 PM 5.00–R14.5 Kern Co Line to Rte 5/99 SEP: *Widen from 8-lane freeway to 10-lane freeway (>2030).*	There are no capacity-improving projects currently programmed for this segment.
3 KERN PM 10.2-R15.5 GRAPEVINE UC to RTE 5/99 SEP	**RTP:** KER 5 PM 5.00–R14.5 Kern Co Line to Rte 5/99 SEP: *Widen from 8-lane freeway to 10-lane freeway (>2030).*	There are no capacity-improving projects currently programmed for this segment.
4 KERN PM R15.5-33.5 RTE 5/99 SEP to RTE 223/5 SEP	There are no capacity-improving projects currently planned for this segment.	**2006 STIP:** KER 5 PM 16.3–73.2 In Kern Co from Rte 99 to Rte 46: *Widen from 4 lane freeway to 6 lane freeway (PID phase).* *Begin construction: 2011/2012* *Complete construction: 2014/2015*
5 KERN PM 33.5-47.5 RTE 223/5 SEP to STOCKDALE RD OC	There are no capacity-improving projects currently planned for this segment.	**2006 STIP:** KER 5 PM 16.3–73.2 In Kern Co from Rte 99 to Rte 46: *Widen from 4 lane freeway to 6 lane freeway (PID phase).* *Begin construction: 2011/2012* *Complete construction: 2014/2015*
6 KERN PM 47.5-52.1 STOCKDALE RD OC to RTE 5/58 SEP	There are no capacity-improving projects currently planned for this segment.	**2006 STIP:** KER 5 PM 16.3–73.2 In Kern Co from Rte 99 to Rte 46: *Widen from 4 lane freeway to 6 lane freeway (PID phase).* *Begin construction: 2011/2012* *Complete construction: 2014/2015*
7 KERN PM 52.1-56.6 RTE 5/58 SEP to 7TH STANDARD RD	There are no capacity-improving projects currently planned for this segment.	**2006 STIP:** KER 5 PM 16.3–73.2 In Kern Co from Rte 99 to Rte 46: *Widen from 4 lane freeway to 6 lane freeway (PID phase).* *Begin construction: 2011/2012* *Complete construction: 2014/2015*
8 KERN PM 56.6-R73.0 7TH STANDARD RD to RTE 46/5 SEP	There are no capacity-improving projects currently planned for this segment.	**2006 STIP:** KER 5 PM 16.3–73.2 In Kern Co from Rte 99 to Rte 46: *Widen from 4 lane freeway to 6 lane freeway (PID phase).* *Begin construction: 2011/2012* *Complete construction: 2014/2015*

Project scope and technical data are for general informational purposes only. If current information is needed, please verify with the Caltrans District 6 Office of Advance Planning at (559) 445-5232.		
Segment PM From/To	**I-5 Planned Projects**	**I-5 Programmed Projects**
10 KINGS PM R0.0-16.6 KERN/KINGS CO LINE to RTE 5/41 SEP	**RTP:** KIN 5 PM 0.0–26.7 Kern Co Line to Fresno Co Line: *Widen from 4-lane freeway to 6-lane freeway (>2025).*	There are no capacity-improving projects currently programmed for this segment.
11 KINGS PM 16.6-26.7 RTE 5/41 SEP to KINGS/FRESNO CO LINE	**RTP:** KIN 5 PM 0.0–26.7 Kern Co Line to Fresno Co Line: *Widen from 4-lane freeway to 6-lane freeway (>2025).*	There are no capacity-improving projects currently programmed for this segment.
12 FRESNO PM 0.0-14.9 KINGS/FRESNO CO LINE to RTE 198/5 SEP	**RTP:** FRE 5 PM 0.0–66.2 Kings Co Line to Merced Co Line: *Widen from 4-lane freeway to 6-lane freeway (Future).*	There are no capacity-improving projects currently programmed for this segment.
13 FRESNO PM 14.9-30.0 RTE 198/5 SEP to N JCT RTE 33/5 SEP	**RTP:** FRE 5 PM 0.0–66.2 Kings Co Line to Merced Co Line: *Widen from 4-lane freeway to 6-lane freeway (Future).*	There are no capacity-improving projects currently programmed for this segment.
14 FRESNO PM 30.0-45.8 N JCT RTE 33/5 SEP to MANNING AVE OC	**RTP:** FRE 5 PM 0.0–66.2 Kings Co Line to Merced Co Line: *Widen from 4-lane freeway to 6-lane freeway (Future).*	There are no capacity-improving projects currently programmed for this segment.
15 FRESNO PM 45.8-52.7 MANNING AVE OC to RUSSELL AVE OC	**RTP:** FRE 5 PM 0.0–66.2 Kings Co Line to Merced Co Line: *Widen from 4-lane freeway to 6-lane freeway (Future).*	There are no capacity-improving projects currently programmed for this segment.
16 FRESNO PM 52.7-66.2 RUSSELL AVE OC to MERCED CO LINE	**RTP:** FRE 5 PM 0.0–66.2 Kings Co Line to Merced Co Line: *Widen from 4-lane freeway to 6-lane freeway (Future).*	There are no capacity-improving projects currently programmed for this segment.

See the Appendix for References, Glossary, and additional information on Intelligent Information Services, Transit, and Bicycle Facilities.

Pages

References
Interstate 5

Local Jurisdictions – MPOs:

Kern Council of Governments (Kern COG)
1401 19th St, Suite 300
Bakersfield, CA 93301
(661) 861-2191

Council of Fresno County Governments (COFCG)
2100 Tulare St, Suite 619
Fresno, CA 93721
(559) 233-4148

Kings County Association of Governments (KCAG)
1400 W Lacey Blvd
Hanford, CA 93230
(559) 582-3211

Air Quality District:

San Joaquin Valley Air Pollution Control District
1990 E Gettysburg Ave
Fresno, CA 93726
(559) 230-6000

Air Basin: San Joaquin Valley

Air Basin Determination:

Severe non-attainment for ozone and serious for PM 10. Contact the District for more information.

Transit Services:

For inquiries on transit services, contact the respective MPO for more information or refer to the Transit Services sheet in the Appendix for an overview of transit services.

Traffic Accident Data:

Caltrans District 6
Office of Traffic Investigations
(559) 488-4123

Sources of Information - All Segments:

State Transportation Improvement Program (STIP), 2002, 2004
State Highway Operations and Protection Program (SHOPP), 2002, 2004
Interregional Improvement Track-Interregional Road System Plan (ITSP), 1998, 2000
Caltrans District 6 Bicycle Survey, 2003
Office of System Planning (559) 444-2500

Sources of Information - By County:

Kern County:
Kern County General Plan, 1998
Kern County Regional Transportation Plan, 2004
Intelligent Transportation System Early Deployment Plan (Kern Region), 1997

Fresno County:
Fresno County General Plan, 2000
Fresno County Regional Transportation Plan, 2004

Kings County:
Kings County General Plan, 1993
Kings County Regional Transportation Plan - 2004
Intelligent Transportation System Early Deployment Plan (Kings Region), 2001

Glossary
Transportation Concept Report

AADT: (Average Annual Daily Traffic). This designation indicates the total daily traffic that is counted at a particular location or within a particular highway segment and then averaged out over one calendar year.

Access Control (or Controlled Access): The condition where the ability to access a state highway by owners or occupants of abutting land is fully or partially controlled by public authority. Also, see Classification of Roads.

Bicycle Facilities: Bicycle facilities within the state are classified into four categories:

- **Class 1 Bikeways (Bike Paths):** Bike Paths are separate *off-highway* facilities for the exclusive use of bicyclists and with cross flow by motor vehicles minimized.
- **Class 2 Bikeways (Bike Lanes):** Bike Lanes are for preferential use by bicyclists and can be established within the paved area of state highways. Such facilities are approved by, and subsequently maintained by, local jurisdictions and/or Caltrans. Bike lanes are separated from traffic lanes on California highways by the use of a painted 6" stripe on the pavement and are designated as bike lanes by the use of white R81 (Bike Lane), R-81A (Begin) and R81-B (End) "regulatory" signs. (MUTCD Chapter 9 - California Supplement - 2004).
- **Class 3 Bikeways (Bike Routes):** Bike Route are shared facilities which serve either to (a) provide continuity to other bike facilities (usually a Class 1 or Class 2 bikeway); or (b) to designate a preferred route through a high demand corridor. Such facilities are approved by, and subsequently maintained by, local jurisdictions and/or Caltrans. Bike Routes are not separated from traffic lanes but are designated as bike routes through the use of green D11-1 (Bike Route), M4-11 (Begin) and M4-12 (End) "guide" signs. (MUTCD - Chapter 9 - 2003).
- **Shared Roadway (No Bikeway Designation):** Most bicycle travel on conventional state highways and local streets occurs on facilities without any bikeway designations, signs or striping. Virtually all highways in use by bicyclists for inter-city and recreational travel fall under this "share-the-road" scenario.

CMS: (Changeable Message Sign). A CMS is a full-matrix display sign used on State highways to provide motorists with an advanced warning of major highway incidents and route diversion information. CMSs are capable of displaying a variety of character heights and up to three lines of text. CMSs play increasingly important roles on State highways by improving operations and safety.

Classification of Roads:

- **Conventional (C):** A highway without access control, which may or may not be divided. Grade separations at intersections or access control may be used when justified at spot locations. Example: 2C = 2 lane conventional highway.
- **Expressway (E):** An arterial highway with at least partial control of access, which may or may not be divided or have grade separations at intersections. Example: 4E = 4 lane expressway (note: 2 lane expressways are not common).
- **Freeway (F):** A highway to which the owners of abutting lands have no right or easement of access to or from their abutting lands. Access is controlled or restricted to interchanges and with grade separation at all intersections. Example: 6F = 6 lane freeway.
- **Functional Classification:** Guided by Federal legislation, functional classification refers to a process by which streets and highways are grouped into classes or systems, according to the character of the service that is provided, e.g., Principal Arterial, Minor Arterial, Collector, Local, etc.

Contract Phasing:

- **Begin Construction:** This is the phase when the contract for construction is approved and construction begins.
- **Complete Construction:** This is the phase when the completion of the construction contract occurs.

COG: See RTPA

CTC: (California Transportation Commission). The California Transportation Commission (CTC) was established in 1978 by Assembly Bill 402 (Chapter 1106, Statutes of 1977) out of a growing concern for a single, unified California transportation policy. The Commission is responsible for the programming and allocating of funds for the construction of highway, passenger rail and transit improvements throughout California. The Commission also advises and assists the Secretary of Business, Transportation and Housing Agency and the Legislature in formulating and evaluating state policies and plans for California's transportation programs. The Commission is also an active participant in the initiation and development of State and Federal legislation that seeks to secure financial stability for the State's transportation needs.

Density: The number of vehicles occupying a given length of lane or roadway averaged over time, usually expressed as vehicles per mile or vehicles per mile per lane. Also see **V/C.**

Facility:
- **Concept Facility:** A highway facility type and characteristic considered viable without improvement within the 25 year planning period given financial, environmental, planning and engineering factors.
- **Present Facility:** Highway type and general characteristics in place at the time of the development of a TCR.

FTIP: See Project Programming

ICES: (Intermodal Corridor of Economic Significance). Significant National Highway System Corridors that link intermodal facilities most directly, conveniently and efficiently to intrastate, interstate, and international markets.

ITMS: (Intermodal Transportation Management System). A performance-based decision support system operating on a personal computer which allows "alternatives analysis" through the use of performance measures. ITMS incorporates intermodal system elements for freight and person movements using a spatial and attribute database thereby allowing management of transportation systems under existing and forecasted conditions. ITMS provides a new intermodal-planning tool using a common statewide data set for state and local transportation planners.

ITS: (Intelligent Transportation Systems). ITS refers to a wide variety of tools and techniques that focus on addressing transportation problems by improving the efficiency and safety of the existing transportation infrastructure. ITS works through the integration of high tech computing and information sharing.

ITSP: (Interregional Transportation Strategic Plan). The ITSP is a single document prepared by Caltrans to consolidate and communicate key elements of its ongoing long and short range planning. The ITSP serves as a counterpart to the Regional Transportation Plans (RTPs) prepared by the 43 Regional Transportation Planning Agencies (RTPAs) in California.

KP: (Kilo Post) See Post Mile

Lifeline Routes: See Route Designations

LOS: (Level of Service). Level of Service describes operating conditions a typical driver will experience on a typical day while driving on a particular facility. Like a report card, the LOS is defined in categories ranging from A-F. "A" represents the best traffic flow (low **v/c** ratio and delay, no impediments) through "F" representing the worse congestion (extremely high **v/c** ratio and delay, gridlock conditions).

MIS: (Major Investment Study). When the need for a major metropolitan transportation investment is identified and Federal funds are potentially involved, a major investment (corridor or sub-area) study is undertaken to develop or refine the plan. Upon completion, the MIS aids the area's Metropolitan Planning Organization (MPO), in cooperation with any participating agencies, on the design concept and scope of the investment.

MPO: See RTPA

Multi-Modal: Pertaining to the use of more than one mode of travel such as private vehicles, taxis, bicycles, mass-transit, para-transit, light and heavy rail, ferries, airplanes etc.

NHS: See Route Designation

NTN: See Route Designation

Non-attainment (pertaining to air quality): Identifies non-attainment status for CO (carbon monoxide), Ozone, and PM (particulate matter) within the subject air basin.

Overcrossing: (O/C) See Structures, Types of

PM: (MilePost Marker, Postmile or KP (Kilo Post). An 8" x 48" metal post marker along a State highway indicating a location using the postmile or designation. This is the distance in miles (or kilometers, in the case of Kilo Post measurements) that the given location is from the county line measuring from the south to the north or from the west to the east. Postmiles ascend in the northerly and easterly directions as determined by the route. The PM marker also includes an abbreviation for the County wherein its located (i.e., in Caltrans District 6: FRE = Fresno, KER = Kern, KIN = Kings, TUL = Tulare, MAD = Madera). As such, a PM marker located along SR 99 and displaying "MAD" and "6.25" would indicate that you are currently located in Madera County at a point 6.25 miles north of the Fresno/Madera County Line.

PROJECT PROGRAMMING: Separate programming documents prepared and adopted for somewhat different purposes, are required under State and Federal law. Transportation programming is the public decision making process that sets priorities and funds projects envisioned in long range transportation plans. It commits expected revenues over a multi-year period to transportation projects. Programming schedules high priority capital outlay projects for development and implementation. Programming documents include Federal, State, Regional and Metropolitan Transportation Plans, e.g., FTIP, ITIP, RTIP, SHOPP, STIP.

- **FTIP:** (Federal Transportation Improvement Program). To apply for federal highway funding a Federal statute requires MPOs to complete a Transportation Improvement Program. The MPO prepares the FTIP in cooperation with its member agencies (cities), its transit operators, State and Federal agencies, and with public involvement. The FTIP must by law be financially constrained and include a financial plan that demonstrates how projects can be implemented while the existing transportation system is being adequately operated and maintained. The FTIPs are in actuality a listing of planned Federally funded capital improvements to the regions' transit systems along with associated Federal operating assistance program and Federal Statewide Transportation Improvement Program (FSTIP).

- **ITIP:** (Interregional Transportation Improvement Program). The ITIP is Caltrans' equivalent to the RTIP (Regional Transportation Improvement Program) and consists of STIP projects funded from the Interregional Program share, which is 25% of new STIP funding. Caltrans' ITIP may nominate projects to the STIP only for the Interregional Program. The ITIP should be based on a Strategic Plan for implementing the Interregional Program. The ITIP should describe how proposed projects relate to the Strategic Plan and how the Strategic Plan would implement the California Transportation Commission's objectives. The ITIP includes both State highway and rail projects (potentially including mass transit guideway and grade separation projects).

- **PSR:** (Project Study Report). A pre-programming document required for project inclusion in the STIP.

- **PSSR:** (Project Scope Summary Report). An engineering report used to select candidate projects to be programmed in the State Highway Operation Protection Program (SHOPP). SHOPP funds are used primarily for rehabilitation, resurfacing and safety projects on State highways.

- **RTIP:** (Regional Transportation Improvement Program). After consulting with Caltrans, each Regional Transportation Planning Agency (RTPA) and/or County Transportation Commission (CTC) must prepare and submit an RTIP for regions with urbanized areas. Some urbanized RTPAs coincide with the Federal Metropolitan Planning Organizations (MPOs). Each regional agency is required to adopt and submit its RTIP to the CTC and to Caltrans. The CTC will utilize the RTIP to consider projects to be included in the State Transportation Improvement Program (STIP). The funds are available for a broad array of transportation improvement projects, including improving State highways, local roads, public transit, inter-city rail, pedestrian and bicycle facilities, grade separations, transportation system management, transportation demand management, soundwalls, etc.

- **SHOPP:** (State Highway Operation Protection Program). The SHOPP is a four-year program limited to projects related to State highway safety and rehabilitation. SHOPP funds are for major transportation capital improvements that are necessary to preserve and protect the State highway system. The SHOPP does not include projects that increase capacity. Most of the projects are for pavement rehabilitation, bridge rehabilitation, and traffic safety improvements. Other projects may include such things as operational improvements (e.g., traffic signalization) and roadside rest areas. Caltrans alone has full control of SHOPP funds.

- **STIP:** (State Transportation Improvement Program). Under California law, the STIP and SHOPP (State Highway Operations Protection Program) are the two primary documents through which the CTC commits and allocates funds to particular projects. In the year 2000 and thereafter, the STIP will be a four year plan with updates every two years. The STIP is a capital improvement program of transportation projects funded with revenues from the State Highway Account and other sources on and off the State highway system. The STIP includes a list of transportation projects, proposed in two broad programs, the regional program funded with 75% of new STIP funding and the interregional program funded from 25%. The STIP has two main funding components: the RIP (Regional Improvement Program), prepared by RTPAs and the IIP (Interregional Improvement Program) prepared by Caltrans.

ROW: (Right-of-Way). Denotes the *total* width allocated for a highway, including shoulders and adjacent land.

RCR: See TCR

Route: The California Legislature establishes the framework for the State Highway System by describing each state roadway in the Streets and Highway Code. This description establishes the official beginning and ending points of a state highway and in some cases intermediate control points.

Route Adoptions: Route Adoptions are needed for the following reasons: (1) any new alignment of an existing legislative route, (2) to establish the location of an unconstructed route, (3) to allow for the conversion of any conventional highway to a freeway or other form of controlled access route, (4) designating a traversable highway and (5) for any temporary alignments along an established state route. Route adoptions are approved by the CTC prior to submission to the FHWA for final approval.

Route Designations: Identifies whether or not the subject segment of a route is designated as being part of a system. Examples of systems include Freeway/Expressway System, Highways of Regional Significance, Interregional Highway System (IRRS), National Highway System (NHS), National Truck Network (NTN), and Terminal Access Route for the National Truck Network, Scenic Highway, or Strategic Highway Network (STRAHNET).

- **Freeway/Expressway System:** The Statewide system of highways declared by the Legislature to be essential to the future development of California. The F&E System has been constructed with a large investment of funds for the ability of control access, in order to ensure the safety and operational integrity of the highways.
- **IRRS:** (Interregional Road System) Caltrans developed an Interregional Road System Plan that identified projects which will provide the most adequate interregional road system to all economic centers in the State. IRRS is a series of Interregional State highway routes, outside the urbanized areas, that provide access to, and links between, the State's economic centers, major recreational areas, and urban and rural regions. Due to the high number of routes and capacity improvements needed on the IRRS, the most critical IRRS routes were identified as *High Emphasis Routes*. High Emphasis Routes are a priority for programming and construction and are critically important to interregional travel and the State as a whole. *Focus Routes* are a subset of the High Emphasis Routes. These routes represent 10 IRRS corridors that should be of the highest priority for completion to minimum facility standard in the 20 year period.

- **Lifeline Routes:** (Earthquake Emergency Response) A Lifeline Route is a route on the State highway system that is deemed so critical to emergency response/life-saving activities of a region or the state that it must remain open immediately following a major earthquake, or for which pre-planning for detour and/or expeditious repair and reopening can guarantee through-movement. The focus is on highly critical routes that allow for the

immediate movement of emergency equipment and supplies into a region or through a region.

- **NHS:** (National Highway System) The purpose of the NHS is to provide an interconnected system of principal arterial routes which will serve major population centers, international border crossings, ports, airports, public transportation facilities and other intermodal transportation facilities. Additionally, such highways meet National defense requirements and serve to facilitate interstate and interregional travel. The NHS consists of 155,000 miles, (plus or minus 15 percent), of the major roads in the U.S. Included in the NHS are all interstate routes, a large percentage of urban and rural principal arterial, the defense strategic highway network, and strategic highway connectors.

- **NTN:** (National Truck Network) A list of truck route segments and their truck access designations (such as National Network (NN), Terminal Access, California Legal, Advisory, or Restricted) with each segment's beginning and ending post miles, and beginning and ending cross streets.

- **Regionally Significant:** A transportation corridor that serves regional transportation needs and would normally be included in the modeling of a metropolitan area's transportation network. Such corridors, at minimum, would include all principal arterial highways and all fixed guideway transit facilities located within the region.

- **Scenic Highway:** A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. For a highway to be considered *Officially Designated* the local jurisdiction is required to develop and adopt protection measures in the form of ordinances to apply to the area of land within the scenic corridor. Additions and deletions to the list of highways eligible for scenic designation can only be made through legislative action.

- **STAA Truck:** In 1982, the Federal government passed the Surface Transportation Assistance Act (STAA). This act requires states to allow certain longer trucks on a network of Federal highways, referred to as the National Network (NN). A STAA truck is, in many cases, longer than a "California legal" truck, and may operate only on specific highways in California.

- **STRAHNET:** (Strategic Highway Corridor Network) STRAHNET is a National system of public highways that are key elements in U.S. strategic policy. This network provides defense access, continuity, and emergency capabilities for movements of personnel and equipment during both peace time and war. STRAHNET is comprised of about 61,000 miles of highway, including the 45,400-mile system of Interstate and Defense Highways and 15,600 miles of other important public highways. STRAHNET "connectors" (about 1,700 miles) are additional highway routes linking over 200 important military installations and ports to the STRAHNET. Generally, these "connector" routes end at the port boundary or installation gate and are typically used only when moving personnel and equipment during a mobilization or deployment

- **Terminal Access Route:** Terminal Access (TA) routes are portions of State or local highways that Caltrans or a local government granted access to STAA trucks. The purpose of TA routes is to allow STAA trucks (1) to travel between NN routes, (2) to reach a truck's operating facility, or (3) to reach a facility where freight originates, terminates, or is handled in the transportation process.

Route Numbering: South-north state and interstate routes normally carry odd number designations (e.g. I-5, SR 43, SR 99 etc.) while west-east routes normally carry even number designations (e.g. I-10, SR 58, SR 168 etc.).

RTIP: See Project Programming

RTP: (Regional Transportation Plan) The RTP is a comprehensive 20 year plan for the region, updated every four years by the regional transportation planning agency (RTPA). The RTP includes goals, objectives, and policies and recommends specific transportation improvements.

RTPA: (Regional Transportation Planning Agency) The RTPA is an association of city and county governments created to address regional transportation issues while protecting the integrity and autonomy of each jurisdiction. The RTPA serves as the forum for cooperative decision making by principal elected officials of general local government and is responsible for the preparation and adoption of a Regional Transportation Improvement Program (RTIP). There are 43 RTPAs in California. In smaller counties, usually the County Transportation Commission; in urban counties, usually the Metropolitan Planning Organization (MPO) is the RTPA. RTPAs produce the RTIPs for the approval of the California Transportation Commission (CTC).

- **MPOs and COGs:** RTPAs can be an MPO (Metropolitan Planning Organization) or a COG (Council of Governments) or all three. Some COGs also serve as MPOs, under Federal transportation rules, and this designation carries considerable power in allocating Federal and State funds for transportation projects. For example, Fresno COG is the MPO for Fresno County.

  According to U.S. Code, an MPO is the organization designated by the governor and local elected officials as responsible, together with the State, for preparing a comprehensive transportation plan for both highway and transit modes, with long range (10 – 20 years) and shorter range (five year) elements in an urbanized area (population 50,000 or greater). The major role of the MPO is to foster inter-governmental communications and cooperation, undertake comprehensive regional planning with an emphasis on transportation, provide for citizen involvement in the planning process and provide technical services to the member agencies. MPOs are created by elected officials of counties and their incorporated cities as a means of providing a cooperative body for the discussion and resolution of issues that go beyond their individual boundaries.

  State and Federal laws encourage such efforts. In each of these areas, MPOs act as a consensus-builder to develop an acceptable approach on how to handle problems that do not recognize jurisdictional boundaries.

R/U: (Rural *or* Urban location) Areas designated as rural are those lying outside the U.S. Census urban area boundary with a population less than 2,500 (less than 5,000 population for Federal Aid highway purposes). Areas designated as urban are those lying inside the U.S. Census urbanized boundary.

Scenic Highway: See Route Designation

Separation: See Structures, Types of

SHOPP: See Project Programming

SR: (State Route) Highways within the State which are distinctively designed to serve intrastate and interstate travel.

STAA: See Route Designation

STIP: See Project Programming

STRAHNET: See Route Designation

STRUCTURES, Types of

- **Overcrossing:** (O/C) A configuration where the State highway crosses below the grade of a local road**.**
- **Separation:** (Sep) A configuration where a State highway crosses over a State highway.
- **Undercrossing:** (U/C) A configuration where a State highway crosses above the grade of a local road.
- **Underpass:** A configuration where the State highway crosses below the grade of a railroad line**.**

TCR: (Transportation Concept Report) Formerly called a Route Concept Report or RCR, this document analyzes a transportation corridor service area, establishes a 20 year transportation planning concept, and identifies modal transportation options and applications needed to achieve the 20 year concepts.

TCRP: (Traffic Congestion Relief Program) The TCRP was enacted as part of AB 2928 (2000). Through the TCRP, the Governor and Legislature allocated $4.9 billion for projects to relieve congestion, provide safe and efficient movement of goods, improve intermodal connectivity, and make further investments in transit and rail facilities within the State.

Undercrossing: See Structures, Types of

Underpass: See Structures, Types of

UTC: (Ultimate Transportation Corridor) Highest predictable build-out beyond 20 years.

V/C: (Volume/Capacity ratio) A ratio of demand flow rate (volume) to capacity for a traffic facility. Also see Density.

Interstate 5
Intelligent Transportation Systems
Existing and Proposed
April 2005
For more information, contact the Central Valley Transportation Management Center at (559) 488-4163

EXISTING CLOSED CIRCUIT TELEVISION (CCTV)					
Element Type	County	Route	Post Mile	Location	Status
CCTV	FRE	5	0.23	SR 269 (LASSEN AVE)	Existing
CCTV	FRE	5	14.84	I-5/SR 198	Existing
CCTV	FRE	5	17.96	SR 145/33/I-5 SEP	Existing
CCTV	FRE	5	29.96	I-5/SR 33 SEP	Existing
CCTV	FRE	5	49.72	N OF PANOCHE ROAD	Existing
CCTV	KER	5	8.5	AT TRUCK ESCAPE RAMP	Existing
CCTV	KER	5	10.17	GRAPEVINE UC	Existing
CCTV	KER	5	15.82	I-5/SR 99 SEP	Existing
CCTV	KER	5	70.46	S OF SR 46	Existing

PROPOSED CLOSED CIRCUIT TELEVISION (CCTV)					
Element Type	County	Route	Post Mile	Location	Status
CCTV	FRE	5	38.53	KAMM AVE	Proposed
CCTV	FRE	5	45.59	MANNING AVE	Proposed
CCTV	FRE	5	60.08	SHIELDS AVE	Proposed
CCTV	KER	5	4.5	NEAR LEBEC AVE OC	Proposed
CCTV	KER	5	13.5	WHEELER RIDGE	Proposed
CCTV	KER	5	41.1	SR 43	Proposed
CCTV	KER	5	47.55	STOCKDALE HWY	Proposed
CCTV	KER	5	52.15	JCT I-5/SR 58	Proposed
CCTV	KIN	5	16.24	I-5/SR 41 SEP	Proposed

EXISTING CHANGEABLE MESSAGE SIGNS (CMS)					
Element Type	County	Route	Post Mile	Location	Status
CMS	FRE	5	2.98	N OF SR 269	Existing
CMS	FRE	5	11.42	S OF SR 198	Existing
CMS	FRE	5	19.38	N OF SR 33/SR 145	Existing
CMS	FRE	5	28.05	S OF SR 33	Existing
CMS	FRE	5	30.65	N OF SR 33	Existing
CMS	FRE	5	47.21	S OF PANOCHE RD	Existing
CMS	FRE	5	52.02	N OF PANOCHE RD	Existing
CMS	FRE	5	58.68	S OF SHIELDS AVE	Existing
CMS	FRE	5	62.64	N OF SHIELDS AVE	Existing
CMS	KER	5	12.2	AT WHEELER RIDGE	Existing
CMS	KER	5	15.8	SB I5/RTE99 JCT	Existing
CMS	KER	5	29.86	S OF SR 223	Existing
CMS	KER	5	43.9	N OF SR 43	Existing
CMS	KER	5	48.2	S OF SR 58	Existing
CMS	KER	5	53.9	N OF SR 58	Existing
CMS	KER	5	61.18	S OF LERDO HWY	Existing
CMS	KER	5	65.23	AT MERCED AVE	Existing
CMS	KER	5	70.49	S OF SR 46	Existing
CMS	KER	5	77.05	AT LOST HILLS RD	Existing
CMS	KIN	5	13.52	AT UTICA AVE	Existing
CMS	KIN	5	19.07	AT MILHAM AVE	Existing
CMS	KIN	5	25.08	S OF SR 269	Existing

PROPOSED CHANGEABLE MESSAGE SIGNS (CMS)					
Element Type	County	Route	Post Mile	Location	Status
CMS	KER	5	20.93	N OF SR 166	Proposed
CMS	FRE	5	4.00	S OF JAYNE AVE	Proposed
CMS	FRE	5	7.00	N OF JAYNE AVE	Proposed
CMS	FRE	5	37.0	S OF KAMM AVE	Proposed
CMS	FRE	5	39.8	N OF KAMM AVE	Proposed

EXISTING HIGHWAY ADVISORY RADIO (HAR)					
Element Type	County	Route	Post Mile	Location	Status
HAR	FRE	5	29.94	AT DERRICK AVE	Existing
HAR	FRE	5	60.18	SHIELDS AVE	Existing
HAR	KER	5	11.4	AT TRUCK INSPECTION	Existing
HAR	KER	5	33.4	AT BEAR MTN ROAD	Existing
HAR	KER	5	54.1	AT BUTTONWILLOW RA	Existing
HAR	KER	5	72.9	AT SR 46	Existing

PROPOSED HIGHWAY ADVISORY RADIO (HAR)					
Element Type	County	Route	Post Mile	Location	Status
HAR	FRE	5	14.87	SR 198	Proposed
HAR	KER	5	0.7	TEJON PASS R.A.	Proposed
HAR	KER	5	82.35	AT TWISSELMAN RD	Proposed
HAR	KIN	5	17	SR 41	Proposed
HAR	FRE	5	1.3	SR 269	Proposed

EXISTING RAMP METERS					
Element Type	County	Route	Post Mile	Location	Status
N/A				N/A	

PROPOSED RAMP METERS					
Element Type	County	Route	Post Mile	Location	Status
N/A				N/A	

EXISTING TRAFFIC MONITORING STATIONS (TMS)					
Element Type	County	Route	Post Mile	Location	Status
D6TMS	FRE	5	60.1	SHIELDS AVE OC	Existing
D6TMS	FRE	5	66.03	NEES AVE OC	Existing
D6TMS	KER	5	33.51	JCT SR 223	Existing
D6TMS	KER	5	39.05	SR 119 SEP	Existing
D6TMS	KER	5	56.6	7TH STANDARD RD	Existing
D6TMS	KER	5	15.20	JCT SR 99	Existing
D6TMS	KER	5	77.06	LOST HILLS RD	Existing
D6TMS	KIN	5	11.73	200' S OF UTICA AVE	Existing
D6TMS	KER	5	12.13	1200' S OF UTICA AVE	Existing
D6TMS	KER	5	12.06	1600' S OF UTICA AVE	Existing

PROPOSED TRAFFIC MONITORING STATIONS (TMS)					
Element Type	County	Route	Post Mile	Location	Status
D6TMS	FRE	5	0.23	At SR 269	Proposed
D6TMS	FRE	5	5.50	At Jayne Oc	Proposed
D6TMS	FRE	5	14.87	At SR 198	Proposed
D6TMS	FRE	5	18.11	At SR 145	Proposed
D6TMS	FRE	5	29.96	At SR 33	Proposed
D6TMS	FRE	5	30.11	At Derrick Ave	Proposed
D6TMS	FRE	5	33.63	Arroyo Hondo UC	Proposed
D6TMS	FRE	5	38.34	Kamm Ave	Proposed
D6TMS	FRE	5	45.79	Manning OC	Proposed
D6TMS	FRE	5	48.99	Panoche OC	Proposed
D6TMS	FRE	5	52.74	Russell OC	Proposed
D6TMS	KER	5	10.17	Grapevine UC (End of D6)	Proposed
D6TMS	KER	5	11.86	CHP Weigh Station	Proposed
D6TMS	KER	5	12.46	California Aquaduct	Proposed
D6TMS	KER	5	13.52	Wheeler Ridge	Proposed
D6TMS	KER	5	16.10	Jno SR 99 Jct	Proposed
D6TMS	KER	5	19.40	At SR 166	Proposed
D6TMS	KER	5	20.94	N of SR 166	Proposed
D6TMS	KER	5	41.19	At SR 43	Proposed
D6TMS	KER	5	47.54	Stockdale	Proposed
D6TMS	KER	5	52.10	At SR 58	Proposed
D6TMS	KER	5	54.11	Buttonwillow RA	Proposed
D6TMS	KER	5	62.60	Lerdo Ave OC	Proposed
D6TMS	KER	5	73.01	At SR 46	Proposed
D6TMS	KER	5	82.34	Twisselman	Proposed
D6TMS	KIN	5	4.42	Xenia	Proposed
D6TMS	KIN	5	16.56	At SR 41	Proposed
D6TMS	KIN	5	25.10	S of SR 269	Proposed

EXISTING WEATHER STATIONS (WS)					
Element Type	County	Route	Post Mile	Location	Status
RPU	FRE	5	11.4	AT EL DORADO AVE	Existing
RPU	FRE	5	49.71	N OF PANOCHE RD	Existing
RPU	KER	5	48.18	S OF SR 58	Existing
RPU	KER	5	70.46	S OF SR 46	Existing
RPU	KIN	5	19.1	AT MILHAM AVE	Existing

PROPOSED WEATHER STATIONS (WS)					
Element Type	County	Route	Post Mile	Location	Status
RPU	FRE	5	30.7	N/O SR 33/DERRICK	Proposed
RPU	FRE	5	62.61	N/O SHIELDS	Proposed
RPU	KER	5	8.3	S/O LEBEC TRK ESC RP	Proposed
RPU	KER	5	29.9	S/O SR 223	Proposed
RPU	KIN	5	25.08	S/O SR 269	Proposed
RPU	KIN	5	61.18	S/O LERDO HWY	Proposed
RPU	KIN	5	12.2	GRAPEVINE(WEIGH ST)	Proposed

Kern County call boxes are managed by the Kern Motorist Aid Authority. For more information call (661) 861-2191 or visit http://kerncog.org/projectbrief-kmaa.php.

KERN COUNTY ONLY - EXISTING CALL BOXES					
Element Type	County	Route	Post Mile	Location	Status
CB	FRE	5	2.98	N OF SR 269	Existing
CB	FRE	5	11.42	S OF SR 198	Existing
CB	FRE	5	19.38	N OF SR 33/SR 145	Existing
CB	FRE	5	28.05	S OF SR 33	Existing
CB	FRE	5	30.65	N OF SR 33	Existing
CB	FRE	5	47.21	S OF PANOCHE RD	Existing
CB	FRE	5	52.02	N OF PANOCHE RD	Existing
CB	FRE	5	58.68	S OF SHIELDS AVE	Existing
CB	FRE	5	62.64	N OF SHIELDS AVE	Existing
CB	KER	5	12.2	AT GRAPEVINE	Existing
CB	KER	5	15.8	SB I5/SR 99 JCT	Existing
CB	KER	5	29.86	S OF SR 223	Existing
CB	KER	5	43.9	N OF SR 43	Existing
CB	KER	5	48.2	S OF SR 58	Existing
CB	KER	5	53.9	SB BUTTONWILLOW REST	Existing
CB	KER	5	61.18	S OF LERDO HWY	Existing
CB	KER	5	65.23	AT MERCED AVE	Existing
CB	KER	5	70.49	S OF SR 46	Existing
CB	KER	5	77.05	AT LOST HILLS RD	Existing
CB	KIN	5	13.52	AT UTICA AVE	Existing
CB	KIN	5	19.07	AT MILHAM AVE	Existing
CB	KIN	5	25.08	S OF SR 269	Existing

I-5
Transit Services
Kern, Kings, and Fresno Counties
April 2005

Segment PM From/To	Transit Services
1-9 KERN PM 0.0-R87.0 LA CO LINE to KERN/KINGS CO LINE	Transit carriers within Kern County include Kern Regional Transit (KRT), Greyhound Bus Lines, Orange Belt Stages, Amtrak (rail service from Bakersfield north) and Amtrak Connection (Amtrak's continuing bus service from Bakersfield south to locations in Southern California). Transit services within the city of Bakersfield are provided by the Golden Empire Transit (GET). Amtrak Connection operates along Segments 1-3 (from the Los Angeles-Kern County Line to the I-5/SR 99 interchange (PM 15.50)) after which it follows SR 99 into Bakersfield. No portion of Amtrak's rail service interfaces with I-5 within Kern County. KRT operates both fixed routes and dial-a-ride services within rural Kern County. Only two of KRT's numerous fixed routes interface with I-5-the Frazier Park Route and Westside Express Route. The Frazier Park Route, like Amtrak's Amtrak Connection, operates along Segments 1-3 (from the Los Angeles-Kern County Line (Frazier Park Road) to the I-5/SR 99 interchange (PM 15.50)) after which it follows SR 99 into Bakersfield. The West Side Express provides transit services between the cities of Bakersfield and Taft via SR 119. The West Side Express only interfaces with I-5 where SR 119 crosses I-5 in southern Kern County. No scheduled stops are currently provided at that location. Greyhound Bus Lines operate fixed routes along all segments of I-5 within Kern County. Currently however, the only scheduled stop in Kern County for Greyhound's I-5 route is at Frazier Park Road (PM 0.00).

I-5
Transit Services
Kern, Kings, and Fresno Counties
April 2005

Segment PM From/To	Transit Services
10-11 KINGS PM R0.0-26.7 KERN/KINGS CO LINE to KINGS/FRESNO CO LINE	Kings County transit carriers include Kings Area Rural Transit (KART), Greyhound Bus Lines, Orange Belt Stage Line and Amtrak. KART also provides transit services within the city of Hanford while the Corcoran Area Transit (CAT) provides services within the city of Corcoran. Greyhound Bus Lines operates fixed routes along all segments of I-5 within Kings County. Greyhound provides scheduled stops in Kettleman City. KART, operated by the Kings County Area Public Transit Agency (KCAPTA), provides fixed route services from Hanford to Avenal via SR 41 and SR 33. SR 41 interfaces I-5 at Kettleman City. Although transit stops are made in Kettleman City, there is currently no scheduled connectivity with Greyhound's I-5 route. Orange Belt Stage Lines provides fixed routes services between Hanford and Paso Robles via SR 41. As with KART, stops are made in Kettleman City but there is currently no scheduled connectivity with Greyhound's I-5 route.
12-16 FRESNO PM 0.0-66.2 KINGS/FRESNO CO LINE to FRESNO/MERCED CO LINE	Fresno County transit carriers include the Fresno County Regional Transit Agency (FCRTA), Greyhound Bus Lines, Orange Belt Stage Lines, and Amtrak. Within the cities of Fresno and Clovis transit serviced are provided by the Fresno Area Express (FAX) and Clovis Transit respectively. FCRTA, via its Coalinga Transit, provides services to the outlying areas of Fresno County including the city of Coalinga in western Fresno County. Coalinga Transit interfaces with I-5 at both Dorris Avenue (Harris Ranch) and at Jayne Avenue. Currently only stops at Dorris Avenue (Harris Ranch) are scheduled. Greyhound Bus Lines operates fixed routes along all segments of I-5 within Fresno County, however no scheduled stops are currently provided within any of these segments. No Orange Belt Stage Line routes interface with any segment of I-5 within Fresno County. No Amtrak route interfaces with any segment of I-5 within Fresno County.

I-5
Bicycle Facilities
Kern, Kings, and Fresno Counties
April 2005

Segment PM From / To	Bicycle Routes and Facilities
1 KERN PM 0.0-4.4 LA CO LINE to FT TEJON OC	Eight-lane freeway segment - shoulder open to bicycle travel. Level to gentle sloping terrain. Snow possible during winter months. *Shoulder width 10'*. Alternate route available via Tejon Road. * ** Designation: Federal Interstate highway open to bicycle travel. No portion of this segment is listed within the 2001 Kern County Regional Bike Plan as a Class I, II or III bike facility.
2 KERN PM 4.4-10.2 FT TEJON OC to GRAPEVINE UC	Eight-lane freeway segment - shoulder open to bicycle travel. Steep (5%-6%) slope within Grapevine Canyon. Snow possible in upper portion during winter. *Shoulder width 10'*. No alternate route available. * ** Designation: Federal Interstate highway open to bicycle travel. No portion of this segment is listed within the 2001 Kern County Regional Bike Plan as a Class I, II or III bike facility.
3 KERN PM 10.2-R15.5 GRAPEVINE UC to RTE 5/99 SEP	Eight-lane freeway segment - shoulder open to bicycle travel. Sloping (2%-3%) terrain. *Shoulder width 10'*. No alternate route available. * ** Designation: Federal Interstate highway open to bicycle travel. No portion of this segment is listed within the 2001 Kern County Regional Bike Plan as a Class I, II or III bike facility.
4-9 KERN PM R15.5-R87.0 RTE 5/99 SEP to KERN/KINGS CO LINE	Four-lane freeway segments - shoulder open to bicycle travel. Level terrain. Dense Winter fog likely within all segments. *Shoulder width 10'*. No direct alternate route available. * ** Designation: Federal Interstate highway open to bicycle travel. No portion of these segments are listed within the 2001 Kern County Regional Bike Plan as either a Class I, II or III bike facility.

I-5
Bicycle Facilities
Kern, Kings, and Fresno Counties
April 2005

Segment PM From / To	Bicycle Routes and Facilities
10-11 KINGS PM 0.00-26.7 KERN/KINGS CO LINE to KINGS/FRESNO CO LINE	Four-lane freeway segments - shoulder open to bicycle travel. Level to rolling terrain. Dense Winter fog likely within all segments. *Shoulder width 10'*. No direct alternate route available. * ** Designation: Federal Interstate highway open to bicycle travel. No portion of these segments are listed within the 2001 Kings County Regional Bike Plan as either a Class I, II or III bike facility.
12-16 FRESNO PM 0.00-66.2 KINGS/FRESNO CO LINE to FRESNO/MERCED CO LINE	Four-lane freeway segments - shoulder open to bicycle travel. Level to rolling terrain. Dense Winter fog likely within all segments. *Shoulder width 10'*. No direct alternate route available. * ** Designation: Federal Interstate highway open to bicycle travel. All four segments are listed within the 2001 Fresno County General Plan-Circulation Element as a Class II bicycle route.

*** Streets and Highway Code-Section 888** - "The department (i.e. Caltrans) shall not construct a state highway as a freeway that will result in the severance or destruction of an existing major route for non-motorized transportation traffic and light motorcycles, unless it provides a reasonable, safe, and convenient alternate route, or unless such a route already exists."

**** California Vehicle Code - Section 21960 (Bikes & Pedestrians on Freeways)** (a) The Department of Transportation **and** local authorities [i.e. acting together - not separately] ...[may]...by order, ordinance, or resolution, with respect to freeways, expressways ... prohibit or restrict the use of the freeways, expressways, or any portion thereof by pedestrians, bicycles or other non-motorized traffic..."